

## Technical Report

# Bill of Material Report

Report generated in BoMGen powered by CompoSIDE

<b>Document:</b>	45ft_Sailing_Yacht_Bill_of_Materials
<b>Product Name:</b>	45 ft Sail Vessel- final
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<b>Circulation:</b>	

### Issues and Amendments:

Issue	Issue Log	Issued by	Approved by	Issue Date
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### Disclaimer:

1. This document is intended for estimation purposes only and is not to be used for materials order.
2. This document should be used as a guide to tendering only. It remains the responsibility of the builder to satisfy himself as to the final selection of materials and the quantities required.
3. Some of the laminates are based on limited information and previous experience.
4. The laminates will be subject to change as the design evolves.
5. The "Weight Estimate" is exclusive of "wastage factors" (i.e. weights as designed) but includes "usage factor" (i.e. core resin consumption etc.).
6. The "Bill of Materials (BoM)" estimate includes "wastage and usage factors"
7. Product BoM factors are specified in the Appendix to this document or if specific for component in the document section outlining component BoM.
8. It is the builder responsibility to verify the appropriateness of the "wastage factors" and "usage factors" applied.

## 1. Introduction

<b>Product:</b>	45 ft Sail Vessel- final
<b>Product Type:</b>	
<b>Keywords:</b>	Bill of Materials

## 2. Product Summary

### 2.1 BoM - Summary

Type	Material / Component	Summary	
		Total Areal Quantity <sup>1</sup> [m <sup>2</sup> ]	Total Weight Quantity <sup>1</sup> [kg]
	Total		989.55
Cores	15 mm CKX40-3.2-(1.4)-A	5.43	3.23
	15 mm CKX48-3.2-(1.8)-A	0.34	0.24
	15 mm CNX48-4.0-(2)-A	6.37	4.54
	20 mm CKX40-3.2-(1.4)-A	5.95	4.71
	20 mm CNX48-4.0-(2)-A	3.58	3.4
	20 mm CNX64-3.2-(2)-A	9.36	11.86
	20 mm FC60	0.45	0.52
	20 mm M200	9.36	36.35
	20 mm M80	1.39	2.29
	25 mm CNX64-3.2-(3)-A	85.47	135.45
Plies	XC-300-E-PP	133.5	65.2
	AF_150g	138.22	25.29
	AF_200g	7.04	1.72
	AF_250g	186.46	56.87
	UC-HEC150-E-PP	161.13	39.83
	UC-HEC200-E-PP	159.94	49.42
	UC-HEC200-E-V	0.24	0.09
	UC-HEC300-E-PP	315.36	146.17
	UC-HEC300-E-V_1	4.5	2.55
	UC-IMC150-E-PP	0.9	0.2
	UC-IMC200-E-PP	195.92	58.78
	WC-200-E-PP	488.37	159.01
	WC-200-E-V	62.26	24.48
	WC-400-E-PP	52.94	35.26
	WC-400-E-V	10.7	8.42
	WG-E300-E-PP	1.58	0.66
	XC-300-E-V	36.76	21.68
	XC-400-E-PP	43.41	28.91
	XC-400-E-V	14.24	11.2
	XC-HEC200-E-PP	83.62	28.06
Formulated Products	EpoxyAdhesive		23.14

Core Weights include Resin Weight due to core resin consumption.  
Areal and weight quantities include wastage and usage factors.  
For core sheet size please refer to section: "Material Details"

#### Formulated Products

Material	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]
EpoxyAdhesive	20.99	23.14

**Resin Weight Summary (included in ply weight)**

Material	Resin Type	Total Resin Weight <sup>1</sup> [kg]
Epoxy W	Epoxy	33.09

Included in plies and cores listed in table above.

## 2.2 Weight Estimate

#	Component	As Designed Weight <sup>2</sup> [kg]
1	1001 HULL	398.47
2	1001 HULL/HULL FOR BoM	398.47
3	1003 DECK	138.33
4	1003 DECK/DECK FOR BoM	138.33
5	1008 HULL BEAMS	48.86
6	1008 HULL BEAMS/Aft Bottom panel EF	10.67
7	1008 HULL BEAMS/Aft Bottom Panel F-Transom	5.1
8	1008 HULL BEAMS/Aft Bottom Stringer DE	5.35
9	1008 HULL BEAMS/Aft Topside Stringer DE	6.49
10	1008 HULL BEAMS/Aft Topside Stringer EF	9.25
11	1008 HULL BEAMS/Fwd Bottom Stringer AB	2.23
12	1008 HULL BEAMS/Fwd Bottom Stringer BC	1.86
13	1008 HULL BEAMS/Fwd Topside Stringer AB	4.85
14	1008 HULL BEAMS/Fwd Topside Stringer BC	3.06
15	1201 DECK BEAMS	8.22
16	1201 DECK BEAMS/Deck beam AB	2.41
17	1201 DECK BEAMS/Deck beam BC	1.61
18	1201 DECK BEAMS/Deck beam Coachroof	1.91
19	1201 DECK BEAMS/Jib Track Beams	2.29
20	INTERNALS (PRIMARY)	208.98
21	INTERNALS (PRIMARY)/11XX BHD	208.98
22	INTERNALS (PRIMARY)/11XX BHD/1102-BHD A	7.23
23	INTERNALS (PRIMARY)/11XX BHD/1103-BHD B	9.96
24	INTERNALS (PRIMARY)/11XX BHD/1104-BHD C	67.2
25	INTERNALS (PRIMARY)/11XX BHD/1105-BHD D	72.35
26	INTERNALS (PRIMARY)/11XX BHD/1106 BHF F rev.2	25.34
27	INTERNALS (PRIMARY)/11XX BHD/1106-BHD E	12.54
28	INTERNALS (PRIMARY)/11XX BHD/1107-TRANSOM	13.75
29	INTERNALS (PRIMARY)/11XX BHD/ADDITIONAL GENOA SUPPORT	0.61
30	KEEL BOX	49.06
31	KEEL BOX/Box	40.83
32	KEEL BOX/Hull Patches	8.22
33	MISC	17.57
34	MISC/C-Plates	17.57
35	RUDDER	18.88

### 3. Components Summary

#### 3.1 HULL FOR BoM (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

##### 3.1.1 HULL FOR BoM Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	XC-300-E-PP	Ply	90.06	99.29	43.54	48.49	0	0
2	AF_250g	Ply	152.44	168.07	46.49	51.26	0	0
3	UC-HEC150-E-PP	Ply	75.3	83.01	18.43	20.52	0	0
4	UC-HEC200-E-PP	Ply	81.91	90.3	25.06	27.9	0	0
5	UC-HEC300-E-PP	Ply	31.6	34.84	14.5	16.15	0	0
6	UC-IMC200-E-PP	Ply	105.97	116.83	31.47	35.05	0	0
7	WC-200-E-PP	Ply	151.7	167.25	48.9	54.46	0	0
8	WC-200-E-V	Ply	9.9	11.12	3.71	4.37	2.12	2.22
9	WC-400-E-PP	Ply	1.54	1.7	1.01	1.13	0	0
10	WC-400-E-V	Ply	5.66	6.36	4.24	5	2.42	2.54
11	XC-400-E-PP	Ply	9.74	10.74	6.42	7.15	0	0
12	XC-400-E-V	Ply	8.49	9.53	6.36	7.5	3.63	3.81
13	XC-HEC200-E-PP	Ply	75.85	83.62	25.2	28.06	0	0
14	25 mm CNX64-3.2-(3)-A	Core	74	85.47	123.14	135.45	0	0

Core Weights include Resin Weight due to core resin consumption.

##### HULL FOR BoM Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> ] / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	Hull Final	Surface Element	74 / -	339.49	1	1
2	Hull to Deck	Bonding	- / 17000	4.37	4	4
3	Bow additional laminate	Reinforcement	- / 1000	1.66	4	4
4	C-Plates	Reinforcement	- / 1000	2.03	1	1
5	Inner Skin Plies	Reinforcement	- / 1000	16.28	1	1
6	Outer Skin Plies	Reinforcement	- / 1000	11.83	1	1

##### 3.1.2 HULL FOR BoM Stacking

###### 3.1.2.1 Hull Final StackUp (Surface Element)

Area: 74 [m<sup>2</sup>]    Component Area Percentage: 100 [%]

Material	α [°]	Area / Cov. [m <sup>2</sup> ] / [%]	Comment
1	WC-200-E-PP	0	74 / 100
2	UC-IMC200-E-PP	0	74 / 100
3	XC-300-E-PP	45	74 / 100
4	UC-HEC200-E-PP	90	74 / 100
5	AF_250g	0	74 / 100
6	25 mm CNX64-3.2-(3)-A	90	74 / 100
7	AF_250g	0	74 / 100
8	UC-HEC150-E-PP	90	74 / 100

Material	$\alpha$	Area / Cov.	Comment
	[°]	[m <sup>2</sup> ] / [%]	
9	XC-HEC200-E-PP	45	74 / 100
10	WC-200-E-PP	0	74 / 100

### 3.1.2.2 Hull to Deck StackUp (Bonding)

Subcomponent Quantity: 4, Length: 17000 [mm]

Material	$\alpha$	Width / Leng. / Cov.	Comment	Hull to Deck
	[°]	[mm] / [mm] / [%]		Bonding
1	XC-400-E-V	45	120 / 17000 / 100	<input checked="" type="checkbox"/>
2	WC-400-E-V	0	80 / 17000 / 100	<input checked="" type="checkbox"/>
3	UC-HEC300-E-PP	0	100 / 17000 / 100	<input checked="" type="checkbox"/>
4	WC-200-E-V	0	140 / 17000 / 100	<input checked="" type="checkbox"/>
Element Quantity		[-]		1
Single Element Thickness		[mm]		1.54

### 3.1.2.3 Bow additional laminate StackUp (Reinforcement)

Subcomponent Quantity: 4, Length: 1000 [mm]

Material	$\alpha$	Width / Leng. / Cov.	Comment	Bow additional laminate
	[°]	[mm] / [mm] / [%]		Reinforcement
1	XC-400-E-PP	45	800 / 1000 / 100	<input checked="" type="checkbox"/>
2	UC-HEC300-E-PP	0	200 / 1000 / 100	<input checked="" type="checkbox"/>
3	UC-HEC300-E-PP	0	450 / 1000 / 100	<input checked="" type="checkbox"/>
4	XC-400-E-PP	0	600 / 1000 / 100	<input checked="" type="checkbox"/>
5	XC-400-E-PP	45	600 / 1000 / 100	<input checked="" type="checkbox"/>
Element Quantity		[-]		1
Single Element Thickness		[mm]		1.95

### 3.1.2.4 C-Plates StackUp (Reinforcement)

Subcomponent Quantity: 1, Length: 1000 [mm]

Material	$\alpha$	Width / Leng. / Cov.	Comment	C-Plates
	[°]	[mm] / [mm] / [%]		Reinforcement
1	XC-400-E-PP	0	1500 / 1000 / 100	<input checked="" type="checkbox"/>
2	WC-400-E-PP	0	1500 / 1000 / 100	<input checked="" type="checkbox"/>
Element Quantity		[-]		1
Single Element Thickness		[mm]		0.9

### 3.1.2.5 Inner Skin Plies StackUp (Reinforcement)

Subcomponent Quantity: 1, Length: 1000 [mm]

Material	$\alpha$	Width / Leng. / Cov.	Comment	Hull Stiffening Tapes	Keel transverse tapes	Rudder Tapes	FWD Topside Tapes
	[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement	Reinforcement	Reinforcement
1 UC-IMC200-E-PP	0	13000 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 UC-HEC200-E-PP	90	6500 / 1000 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 UC-HEC300-E-PP	0	1920 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4 UC-HEC300-E-PP	0	2200 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5 UC-HEC300-E-PP	0	8820 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 UC-HEC300-E-PP	0	1140 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 UC-HEC300-E-PP	0	660 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 XC-300-E-PP	45	3600 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 XC-300-E-PP	45	2640 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 XC-300-E-PP	45	720 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Element Quantity		[-]		1	1	1	1
Single Element Thickness		[mm]		0.2	0.2	0.3	0.3

Material	$\alpha$	Width / Leng. / Cov.	Comment	AFT Topside tapes	Mid Bottom tapes	Transom Tapes	Rudder Patch
	[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement	Reinforcement	Reinforcement
1 UC-IMC200-E-PP	0	13000 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 UC-HEC200-E-PP	90	6500 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 UC-HEC300-E-PP	0	1920 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 UC-HEC300-E-PP	0	2200 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 UC-HEC300-E-PP	0	8820 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 UC-HEC300-E-PP	0	1140 / 1000 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 UC-HEC300-E-PP	0	660 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8 XC-300-E-PP	45	3600 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 XC-300-E-PP	45	2640 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 XC-300-E-PP	45	720 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity		[-]		1	1	1	1
Single Element Thickness		[mm]		0.3	0.3	0.3	0.33

Material	$\alpha$	Width / Leng. / Cov.	Comment	Chainplates Patch	Keel patch
	[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement
1 UC-IMC200-E-PP	0	13000 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>
2 UC-HEC200-E-PP	90	6500 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>
3 UC-HEC300-E-PP	0	1920 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>
4 UC-HEC300-E-PP	0	2200 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>
Element Quantity		[-]		1	1
Single Element Thickness		[mm]		0.33	0.33

Material		$\alpha$	Width / Leng. / Cov.	Comment	Chainplates Patch	Keel patch
		[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement
5	UC-HEC300-E-PP	0	8820 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>
6	UC-HEC300-E-PP	0	1140 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>
7	UC-HEC300-E-PP	0	660 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>
8	XC-300-E-PP	45	3600 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	XC-300-E-PP	45	2640 / 1000 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	XC-300-E-PP	45	720 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>
Element Quantity			[-]		1	1
Single Element Thickness			[mm]		0.33	0.33

### 3.1.2.6 Outer Skin Plies StackUp (Reinforcement)

Subcomponent Quantity: 1, Length: 1000 [mm]

Material	$\alpha$	Width / Leng. / Cov.	Comment	Tapes BHD c	tapes BHD D	Hull Stiffening Tapes	Additional Tapes keel
	[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement	Reinforcement	Reinforcement
1 UC-IMC200-E-PP	0	3500 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 UC-HEC300-E-PP	0	3000 / 1000 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 UC-IMC200-E-PP	0	13000 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4 UC-HEC300-E-PP	0	2000 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5 UC-HEC300-E-PP	0	1920 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 XC-300-E-PP	45	3600 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 XC-300-E-PP	45	2600 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 XC-300-E-PP	45	700 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 UC-IMC200-E-PP	0	650 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Element Quantity		[-]		1	1	1	1
Single Element Thickness		[mm]		0.2	0.3	0.2	0.3

Material	$\alpha$	Width / Leng. / Cov.	Comment	Tapes Rudder	Chainplate Patches	Keel Patches	Rudder Patches
	[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement	Reinforcement	Reinforcement
1 UC-IMC200-E-PP	0	3500 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 UC-HEC300-E-PP	0	3000 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 UC-IMC200-E-PP	0	13000 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 UC-HEC300-E-PP	0	2000 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 UC-HEC300-E-PP	0	1920 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 XC-300-E-PP	45	3600 / 1000 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 XC-300-E-PP	45	2600 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8 XC-300-E-PP	45	700 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity		[-]		1	1	1	1
Single Element Thickness		[mm]		0.3	0.33	0.33	0.33



Material	$\alpha$	Width / Leng. / Cov.	Comment	Tapes Rudder	Chainplate Patches	Keel Patches	Rudder Patches
	[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement	Reinforcement	Reinforcement
9 UC-IMC200-E-PP	0	650 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Element Quantity		[-]		1	1	1	1
Single Element Thickness		[mm]		0.3	0.33	0.33	0.33

Material	$\alpha$	Width / Leng. / Cov.	Comment	Additional Tapes
	[°]	[mm] / [mm] / [%]		Reinforcement
1 UC-IMC200-E-PP	0	3500 / 1000 / 100		<input type="checkbox"/>
2 UC-HEC300-E-PP	0	3000 / 1000 / 100		<input type="checkbox"/>
3 UC-IMC200-E-PP	0	13000 / 1000 / 100		<input type="checkbox"/>
4 UC-HEC300-E-PP	0	2000 / 1000 / 100		<input type="checkbox"/>
5 UC-HEC300-E-PP	0	1920 / 1000 / 100		<input type="checkbox"/>
6 XC-300-E-PP	45	3600 / 1000 / 100		<input type="checkbox"/>
7 XC-300-E-PP	45	2600 / 1000 / 100		<input type="checkbox"/>
8 XC-300-E-PP	45	700 / 1000 / 100		<input type="checkbox"/>
9 UC-IMC200-E-PP	0	650 / 1000 / 100		<input checked="" type="checkbox"/>
Element Quantity		[-]		1
Single Element Thickness		[mm]		0.2

### 3.2 DECK FOR BoM (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.2.1 DECK FOR BoM Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	XC-300-E-PP	Ply	16.79	18.51	8.12	9.04	0	0
2	AF_150g	Ply	108.77	119.92	19.9	21.94	0	0
3	UC-HEC150-E-PP	Ply	53.72	59.23	13.15	14.64	0	0
4	UC-HEC200-E-PP	Ply	6.55	7.22	2	2.23	0	0
5	UC-HEC300-E-PP	Ply	21.49	23.69	9.86	10.98	0	0
6	UC-IMC200-E-PP	Ply	25.44	28.04	7.55	8.41	0	0
7	WC-200-E-PP	Ply	240.32	264.95	77.47	86.27	0	0
8	WC-400-E-PP	Ply	0.41	0.45	0.27	0.3	0	0

Core Weights include Resin Weight due to core resin consumption.

#### DECK FOR BoM Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> ] / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	Deck Final	Surface Element	52.8 / -	102.83	1	1
2	One Off Patches	Reinforcement	- / 1000	10.16	2	2
3	Symmetric Patches	Reinforcement	- / 1000	3.79	4	4

#### 3.2.2 DECK FOR BoM Stacking

##### 3.2.2.1 Deck Final StackUp (Surface Element)

Area: 52.8 [m<sup>2</sup>] Component Area Percentage: 100 [%]

Material		$\alpha$	Area / Cov.	Comment
		[°]	[m <sup>2</sup> ] / [%]	
1	WC-200-E-PP	0	52.8 / 100	
2	UC-HEC150-E-PP	90	52.8 / 100	
3	WC-200-E-PP	45	52.8 / 100	
4 - 5	2 x AF_150g	0	52.8 / 100	
6	WC-200-E-PP	45	52.8 / 100	
7	WC-200-E-PP	0	52.8 / 100	

##### 3.2.2.2 One Off Patches StackUp (Reinforcement)

Subcomponent Quantity: 2, Length: 1000 [mm]

Material	$\alpha$	Width / Leng. / Cov.	Comment	S. Skin bow	Hatch	Mast	Pit
	[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement	Reinforcement	Reinforcement
1 - 3	3 x XC-300-E-PP	45 700 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 - 6	3 x XC-300-E-PP	0 700 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Element Quantity		[-]		1	1	1	1
Single Element Thickness		[mm]		1.98	0.44	0.55	0.45

Material	$\alpha$	Width / Leng. / Cov.	Comment	S. Skin bow	Hatch	Mast	Pit
	[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement	Reinforcement	Reinforcement
7	WC-200-E-PP	0	2700 / 1000 / 100	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	WC-200-E-PP	45	2700 / 1000 / 100	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	XC-300-E-PP	45	1900 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10	WC-200-E-PP	0	1900 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11	WC-400-E-PP	45	200 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	UC-HEC300-E-PP	0	1200 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	XC-300-E-PP	45	600 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	XC-300-E-PP	0	540 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	UC-HEC300-E-PP	0	20 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	XC-300-E-PP	45	300 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	WC-200-E-PP	0	300 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	UC-HEC300-E-PP	0	4200 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	UC-HEC300-E-PP	0	2400 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	XC-300-E-PP	45	150 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	WC-200-E-PP	0	150 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Element Quantity		[-]		1	1	1	1
Single Element Thickness		[mm]		1.98	0.44	0.55	0.45

Material	$\alpha$	Width / Leng. / Cov.	Comment	Pedestals	Track Mainsheet	Rudder	Cleats
	[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement	Reinforcement	Reinforcement
1 - 3	3 x XC-300-E-PP	45	700 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 - 6	3 x XC-300-E-PP	0	700 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	WC-200-E-PP	0	2700 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	WC-200-E-PP	45	2700 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	XC-300-E-PP	45	1900 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	WC-200-E-PP	0	1900 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	WC-400-E-PP	45	200 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	UC-HEC300-E-PP	0	1200 / 1000 / 100	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	XC-300-E-PP	45	600 / 1000 / 100	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	XC-300-E-PP	0	540 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15	UC-HEC300-E-PP	0	20 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16	XC-300-E-PP	45	300 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17	WC-200-E-PP	0	300 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity		[-]		1	1	1	1
Single Element Thickness		[mm]		0.3	0.33	0.63	0.55

Material	$\alpha$	Width / Leng. / Cov.	Comment	Pedestals	Track Mainsheet	Rudder	Cleats
	[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement	Reinforcement	Reinforcement
PP							
18 UC-HEC300-E-PP	0	4200 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19 UC-HEC300-E-PP	0	2400 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 XC-300-E-PP	45	150 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 WC-200-E-PP	0	150 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Element Quantity		[-]		1	1	1	1
Single Element Thickness		[mm]		0.3	0.33	0.63	0.55

Material	$\alpha$	Width / Leng. / Cov.	Comment	Com Tapes Outer Skin	Mast Collar	Comp Tapes Inner Skin
	[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement	Reinforcement
1 - 3 3 x XC-300-E-PP	45	700 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 - 6 3 x XC-300-E-PP	0	700 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 WC-200-E-PP	0	2700 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 WC-200-E-PP	45	2700 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 XC-300-E-PP	45	1900 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 WC-200-E-PP	0	1900 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 WC-400-E-PP	45	200 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 UC-HEC300-E-PP	0	1200 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 XC-300-E-PP	45	600 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 XC-300-E-PP	0	540 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 UC-HEC300-E-PP	0	20 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 XC-300-E-PP	45	300 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 WC-200-E-PP	0	300 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 UC-HEC300-E-PP	0	4200 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19 UC-HEC300-E-PP	0	2400 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 XC-300-E-PP	45	150 / 1000 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
21 WC-200-E-PP	0	150 / 1000 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Element Quantity		[-]		1	1	1
Single Element Thickness		[mm]		0.3	0.55	0.3

### 3.2.2.3 Symmetric Patches StackUp (Reinforcement)

Subcomponent Quantity: 4, Length: 1000 [mm]

Material	$\alpha$	Width / Leng. / Cov.	Comment	corner Tapes hatch	Sheave AB Plies	Sheave B Plies	Sheave C Plies
	[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement	Reinforcement	Reinforcement
1 UC-HEC300-E-PP	0	150 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 UC-HEC300-E-PP	0	270 / 1000 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 WC-200-E-PP	45	200 / 1000 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 UC-HEC300-E-PP	0	50 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Element Quantity		[-]		1	1	1	1
Single Element Thickness		[mm]		0.3	0.52	0.52	0.2

Material	$\alpha$	Width / Leng. / Cov.	Comment	corner Tapes hatch	Sheave AB Plies	Sheave B Plies	Sheave C Plies
	[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement	Reinforcement	Reinforcement
5	WC-200-E-PP	45 90 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	UC-HEC200-E-PP	0 60 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	XC-300-E-PP	45 200 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	UC-HEC200-E-PP	0 300 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	XC-300-E-PP	45 50 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	WC-200-E-PP	45 450 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	UC-HEC200-E-PP	0 650 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	WC-200-E-PP	45 750 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	UC-HEC300-E-PP	0 300 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	UC-HEC200-E-PP	0 600 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	XC-300-E-PP	0 50 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	WC-200-E-PP	45 50 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	WC-200-E-PP	45 400 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	UC-HEC300-E-PP	0 600 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	UC-IMC200-E-PP	0 6250 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Element Quantity		[-]		1	1	1	1
Single Element Thickness		[mm]		0.3	0.52	0.52	0.2

Material	$\alpha$	Width / Leng. / Cov.	Comment	Chainplates	Main Winch	Primary Winch	Runner Winch
	[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement	Reinforcement	Reinforcement
1	UC-HEC300-E-PP	0 150 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	UC-HEC300-E-PP	0 270 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	WC-200-E-PP	45 200 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	UC-HEC300-E-PP	0 50 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	WC-200-E-PP	45 90 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	UC-HEC200-E-PP	0 60 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	XC-300-E-PP	45 200 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	UC-HEC200-E-PP	0 300 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	XC-300-E-PP	45 50 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	WC-200-E-PP	45 450 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11	UC-HEC200-E-PP	0 650 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Element Quantity		[-]		1	1	1	1
Single Element Thickness		[mm]		0.53	0.52	0.42	0.53

Material	$\alpha$	Width / Leng. / Cov.	Comment	Chainplates	Main Winch	Primary Winch	Runner Winch
	[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement	Reinforcement	Reinforcement
E-PP							
12 WC-200-E-PP	45	750 / 1000 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 UC-HEC300-E-PP	0	300 / 1000 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 UC-HEC200-E-PP	0	600 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15 XC-300-E-PP	0	50 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16 WC-200-E-PP	45	50 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 WC-200-E-PP	45	400 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 UC-HEC300-E-PP	0	600 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19 UC-IMC200-E-PP	0	6250 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Element Quantity		[-]		1	1	1	1
Single Element Thickness		[mm]		0.53	0.52	0.42	0.53

Material	$\alpha$	Width / Leng. / Cov.	Comment	Steering Pedestals	Winch pedestal	Stiffening IMC tapes
	[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement	Reinforcement
1 UC-HEC300-E-PP	0	150 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 UC-HEC300-E-PP	0	270 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 WC-200-E-PP	45	200 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 UC-HEC300-E-PP	0	50 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 WC-200-E-PP	45	90 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 UC-HEC200-E-PP	0	60 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 XC-300-E-PP	45	200 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 UC-HEC200-E-PP	0	300 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 XC-300-E-PP	45	50 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 WC-200-E-PP	45	450 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 UC-HEC200-E-PP	0	650 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 WC-200-E-PP	45	750 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 UC-HEC300-E-PP	0	300 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 UC-HEC200-E-PP	0	600 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 XC-300-E-PP	0	50 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 WC-200-E-PP	45	50 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 WC-200-E-PP	45	400 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 UC-HEC300-E-PP	0	600 / 1000 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
19 UC-IMC200-E-PP	0	6250 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity		[-]		1	1	1
Single Element Thickness		[mm]		0.44	0.3	0.2

### 3.3 1106 BHF F rev.2 (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.3.1 1106 BHF F rev.2 Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	XC-300-E-PP	Ply	5.12	5.65	2.48	2.76	0	0
2	AF_200g	Ply	6.39	7.04	1.56	1.72	0	0
3	UC-HEC200-E-PP	Ply	6.31	6.96	1.93	2.15	0	0
4	UC-HEC300-E-PP	Ply	16.86	18.59	7.74	8.61	0	0
5	WC-200-E-PP	Ply	6.36	7.01	2.05	2.28	0	0
6	WC-200-E-V	Ply	3.14	3.53	1.18	1.39	0.67	0.71
7	XC-300-E-V	Ply	4.22	4.74	2.37	2.8	1.36	1.42
8	20 mm CNX48-4.0-(2)-A	Core	3.1	3.58	3.1	3.4	0	0
9	EpoxyAdhesive	Homogen	0	0	2.94	3.25	0	0

Core Weights include Resin Weight due to core resin consumption.

#### 1106 BHF F rev.2 Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> ] / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	Bhd F Rev.2	Surface Element	3.1 / -	14.3	1	1
2	Bonding	Reinforcement	- / 9900	3.22	2	2
3	Capping	Reinforcement	- / 3600	0.53	1	1
4	Tapes	Reinforcement	- / 1000	1.98	2	2

#### 3.3.2 1106 BHF F rev.2 Stacking

##### 3.3.2.1 Bhd F Rev.2 StackUp (Surface Element)

Area: 3.1 [m<sup>2</sup>] Component Area Percentage: 100 [%]

	Material	$\alpha$ [°]	Area / Cov. [m <sup>2</sup> ] / [%]	Comment
1	WC-200-E-PP	0	3.1 / 100	
2	UC-HEC200-E-PP	0	3.1 / 100	
3	UC-HEC300-E-PP	45	3.1 / 100	
4	UC-HEC300-E-PP	-45	3.1 / 100	
5	AF_200g	0	3.1 / 100	
6	20 mm CNX48-4.0-(2)-A	0	3.1 / 100	
7	AF_200g	0	3.1 / 100	
8	UC-HEC300-E-PP	-45	3.1 / 100	
9	UC-HEC300-E-PP	45	3.1 / 100	
10	UC-HEC200-E-PP	0	3.1 / 100	
11	WC-200-E-PP	0	3.1 / 100	

##### 3.3.2.2 Bonding StackUp (Reinforcement)

Subcomponent Quantity: 2, Length: 9900 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Hull	Deck
		[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement
1	2mm EpoxyAdhesive	0	8 / 5200 / 52.53		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2 - 3	2 x XC-300-E-V	45	100 / 5200 / 52.53		<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	WC-200-E-V	45	100 / 5200 / 52.53		<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	R20 EpoxyAdhesive	0	5200 / 52.53		<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	XC-300-E-V	45	100 / 9900 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	WC-200-E-V	45	100 / 9900 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	R15 EpoxyAdhesive	0	9900 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	2mm EpoxyAdhesive	0	8 / 9900 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity			[-]		1	1
Single Element Thickness			[mm]		3	2.62

### 3.3.2.3 Capping StackUp (Reinforcement)

Subcomponent Quantity: 1, Length: 3600 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Capping
		[°]	[mm] / [mm] / [%]		Reinforcement
1	R8 EpoxyAdhesive	0	3600 / 100		<input checked="" type="checkbox"/>
2 - 9	8 x UC-HEC300-E-PP	0	35 / 3600 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		2.4

### 3.3.2.4 Tapes StackUp (Reinforcement)

Subcomponent Quantity: 2, Length: 1000 [mm]

Material	$\alpha$	Width / Leng. / Cov.	Comment	Tray	Diagonal tapes	Corner Tapes	Vertical Tapes
	[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement	Reinforcement	Reinforcement
1	XC-300-E-PP	45	2500 / 1000 / 100	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	UC-HEC300-E-PP	0	400 / 1000 / 100	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	UC-HEC300-E-PP	0	240 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	UC-HEC300-E-PP	0	520 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	UC-HEC300-E-PP	0	360 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	UC-HEC300-E-PP	90	60 / 1000 / 100	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Element Quantity		[-]		1	1	1	1
Single Element Thickness		[mm]		0.33	0.3	0.3	0.3

Material		$\alpha$	Width / Leng. / Cov.	Comment	Sole to side corner	Sheave box
		[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement
1	XC-300-E-PP	45	2500 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>
2	UC-HEC300-E-PP	0	400 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>
3	UC-HEC300-E-PP	0	240 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>
4	UC-HEC300-E-PP	0	520 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>
5	UC-HEC300-E-PP	0	360 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Element Quantity			[-]		1	1
Single Element Thickness			[mm]		0.3	0.3



Material	$\alpha$	Width / Leng. / Cov.	Comment	Sole to side corner	Sheave box
	[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement
6 UC-HEC300-E-PP	90	60 / 1000 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity		[-]		1	1
Single Element Thickness		[mm]		0.3	0.3

### 3.4 ADDITIONAL GENOA SUPPORT (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.4.1 ADDITIONAL GENOA SUPPORT Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	UC-HEC200-E-V	Ply	0.21	0.24	0.08	0.09	0.04	0.05
2	WC-200-E-V	Ply	0.55	0.62	0.21	0.24	0.12	0.12
3	XC-400-E-V	Ply	0.32	0.36	0.24	0.28	0.14	0.14
4	EpoxyAdhesive	Homogen	0	0	0.08	0.09	0	0

Core Weights include Resin Weight due to core resin consumption.

ADDITIONAL GENOA SUPPORT Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> ] / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	t=3.0 C-Plate	Surface Element	0.03 / -	0.15	1	1
2	Bonding	Bonding	- / 700	0.11	2	2
3	Tapes	Reinforcement	- / 700	0.12	2	2

#### 3.4.2 ADDITIONAL GENOA SUPPORT Stacking

##### 3.4.2.1 t=3.0 C-Plate StackUp (Surface Element)

Area: **0.03** [m<sup>2</sup>] Component Area Percentage: **100** [%]

Material		$\alpha$	Area / Cov.	Comment
		[°]	[m <sup>2</sup> ] / [%]	
1	XC-400-E-V	0	0.0323 / 100	
2	XC-400-E-V	90	0.0323 / 100	
3	XC-400-E-V	45	0.0323 / 100	
4	XC-400-E-V	-45	0.0323 / 100	
5	XC-400-E-V	90	0.0323 / 100	
6	XC-400-E-V	0	0.0323 / 100	

##### 3.4.2.2 Bonding StackUp (Bonding)

Subcomponent Quantity: 2, Length: **700** [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Bonding
		[°]	[mm] / [mm] / [%]		Bonding
1	XC-400-E-V	45	80 / 700 / 100		<input checked="" type="checkbox"/>
2	WC-200-E-V	45	80 / 700 / 100		<input checked="" type="checkbox"/>
3	R15 EpoxyAdhesive	0	700 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		0.75

##### 3.4.2.3 Tapes StackUp (Reinforcement)

Subcomponent Quantity: 2, Length: **700** [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Tapes
		[°]	[mm] / [mm] / [%]		Reinforcement
1	WC-200-E-V	45	150 / 700 / 100		<input checked="" type="checkbox"/>
2	UC-HEC200-E-V	0	150 / 700 / 100		<input checked="" type="checkbox"/>
3	WC-200-E-V	45	150 / 700 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		0.73

### 3.5 1107-TRANSOM (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.5.1 1107-TRANSOM Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	AF_150g	Ply	4.82	5.31	0.88	0.97	0	0
2	UC-HEC300-E-PP	Ply	14.29	15.75	6.56	7.3	0	0
3	WC-200-E-PP	Ply	4.8	5.29	1.55	1.72	0	0
4	WC-200-E-V	Ply	5.59	6.28	2.09	2.47	1.2	1.26
5	20 mm CKX40-3.2-(1.4)-A	Core	2.34	2.7	1.95	2.14	0	0
6	EpoxyAdhesive	Homogen	0	0	0.73	0.8	0	0

Core Weights include Resin Weight due to core resin consumption.

#### 1107-TRANSOM Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> ] / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	Transom	Surface Element	2.34 / -	10.86	1	1
2	Hull	Bonding	- / 9600	2.82	1	1

#### 3.5.2 1107-TRANSOM Stacking

##### 3.5.2.1 Transom StackUp (Surface Element)

Area: 2.34 [m<sup>2</sup>]    Component Area Percentage: 100 [%]

Material		α	Area / Cov.	Comment
		[°]	[m <sup>2</sup> ] / [%]	
Face		0		
1	WC-200-E-PP	0	2.34 / 100	
2	UC-HEC300-E-PP	0	2.34 / 100	
3	UC-HEC300-E-PP	45	2.34 / 100	
4	UC-HEC300-E-PP	-45	2.34 / 100	
5	AF_150g	0	2.34 / 100	
6	20 mm CKX40-3.2-(1.4)-A	0	2.34 / 100	
Face'		0		
7	AF_150g	0	2.34 / 100	
8	UC-HEC300-E-PP	-45	2.34 / 100	
9	UC-HEC300-E-PP	45	2.34 / 100	
10	UC-HEC300-E-PP	0	2.34 / 100	
11	WC-200-E-PP	0	2.34 / 100	

##### 3.5.2.2 Hull StackUp (Bonding)

Subcomponent Quantity: 1, Length: 9600 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Hull
		[°]	[mm] / [mm] / [%]		Bonding
1	2mm EpoxyAdhesive	0	20 / 9600 / 100		<input checked="" type="checkbox"/>
2	R10 EpoxyAdhesive	0	9600 / 100		<input checked="" type="checkbox"/>
3 - 6	4 x WC-200-E-V	45	140 / 9600 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		3

### 3.6 1106-BHD E (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.6.1 1106-BHD E Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	AF_150g	Ply	5.36	5.9	0.98	1.08	0	0
2	UC-HEC200-E-PP	Ply	10.58	11.67	3.24	3.6	0	0
3	UC-HEC300-E-PP	Ply	2.44	2.69	1.12	1.25	0	0
4	WC-200-E-PP	Ply	5.33	5.88	1.72	1.91	0	0
5	WC-200-E-V	Ply	2.18	2.45	0.82	0.96	0.47	0.49
6	XC-300-E-V	Ply	2.18	2.45	1.23	1.45	0.7	0.74
7	15 mm CNX48-4.0-(2)-A	Core	2.6	3	1.95	2.14	0	0
8	EpoxyAdhesive	Homogen	0	0	1.49	1.65	0	0

Core Weights include Resin Weight due to core resin consumption.

#### 1106-BHD E Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> ] / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	Bulkheads A B E	Surface Element	2.6 / -	7.81	1	1
2	Hull	Bonding	- / 10500	1.7	2	2
3	Capping	Reinforcement	- / 4000	0.63	2	2

#### 3.6.2 1106-BHD E Stacking

##### 3.6.2.1 Bulkheads A B E StackUp (Surface Element)

Area: 2.6 [m<sup>2</sup>] Component Area Percentage: 100 [%]

	Material	$\alpha$ [°]	Area / Cov. [m <sup>2</sup> ] / [%]	Comment
1	WC-200-E-PP	0	2.6 / 100	
2	UC-HEC200-E-PP	45	2.6 / 100	
3	UC-HEC200-E-PP	-45	2.6 / 100	
4	AF_150g	0	2.6 / 100	
5	15 mm CNX48-4.0-(2)-A	0	2.6 / 100	
6	AF_150g	0	2.6 / 100	
7	UC-HEC200-E-PP	-45	2.6 / 100	
8	UC-HEC200-E-PP	45	2.6 / 100	
9	WC-200-E-PP	0	2.6 / 100	

##### 3.6.2.2 Hull StackUp (Bonding)

Subcomponent Quantity: 2, Length: 10500 [mm]

	Material	$\alpha$ [°]	Width / Leng. / Cov. [mm] / [mm] / [%]	Comment	Hull Bonding	Deck Bonding
1	2mm EpoxyAdhesive	0	8 / 5800 / 55.24		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	R15 EpoxyAdhesive	0	5800 / 55.24		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Element Quantity			[-]		1	1
Single Element Thickness			[mm]		2.62	2.62

Material		$\alpha$	Width / Leng. / Cov.	Comment	Hull	Deck
		[°]	[mm] / [mm] / [%]		Bonding	Bonding
3	XC-300-E-V	0	100 / 5800 / 55.24		<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	WC-200-E-V	45	100 / 5800 / 55.24		<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	2mm EpoxyAdhesive	0	8 / 4700 / 44.76		<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	R10 EpoxyAdhesive	0	4700 / 44.76		<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	XC-300-E-V	0	100 / 4700 / 44.76		<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	WC-200-E-V	0	100 / 4700 / 44.76		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity			[-]		1	1
Single Element Thickness			[mm]		2.62	2.62

### 3.6.2.3 Capping StackUp (Reinforcement)

Subcomponent Quantity: 2, Length: 4000 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Capping
		[°]	[mm] / [mm] / [%]		Reinforcement
1	R8 EpoxyAdhesive	0	4000 / 100		<input checked="" type="checkbox"/>
2 - 11	10 x UC-HEC300-E-PP	0	30 / 4000 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		3

### 3.7 1104-BHD C (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.7.1 1104-BHD C Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	AF_250g	Ply	8.03	8.86	2.45	2.7	0	0
2	UC-HEC300-E-PP	Ply	66.83	73.68	30.67	34.15	0	0
3	WC-200-E-PP	Ply	8	8.81	2.58	2.87	0	0
4	WC-200-E-V	Ply	2.3	2.58	0.86	1.01	0.49	0.52
5	WC-400-E-PP	Ply	8	8.81	5.27	5.87	0	0
6	XC-300-E-V	Ply	5.26	5.91	2.95	3.49	1.69	1.77
7	20 mm CNX64-3.2-(2)-A	Core	3.9	4.5	5.19	5.71	0	0
8	20 mm M200	Core	3.9	4.5	15.91	17.5	0	0
9	EpoxyAdhesive	Homogen	0	0	1.31	1.45	0	0

Core Weights include Resin Weight due to core resin consumption.

#### 1104-BHD C Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> ] / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	Bulkhead C D	Surface Element	3.9 / -	60.03	1	1
2	Bonding	Bonding	- / 9200	2.43	2	2
3	Capping	Reinforcement	- / 5800	0.27	1	1
4	Capping Plank	Reinforcement	- / 2250	0.76	2	2

#### 3.7.2 1104-BHD C Stacking

##### 3.7.2.1 Bulkhead C D StackUp (Surface Element)

Area: 3.9 [m<sup>2</sup>] Component Area Percentage: 100 [%]

Material		$\alpha$	Area / Cov.	Comment
		[°]	[m <sup>2</sup> ] / [%]	
1	WC-200-E-PP	0	3.9 / 100	
2	UC-HEC300-E-PP	35	3.9 / 100	
3	UC-HEC300-E-PP	45	3.9 / 100	
4	UC-HEC300-E-PP	-45	3.9 / 100	
5	UC-HEC300-E-PP	0	3.9 / 100	
6	UC-HEC300-E-PP	90	3.9 / 100	
7	UC-HEC300-E-PP	-85	3.9 / 100	
8	WC-400-E-PP	0	3.9 / 100	
9	UC-HEC300-E-PP	45	3.9 / 100	
10	UC-HEC300-E-PP	-45	3.9 / 100	
11	AF_250g	0	3.9 / 100	
12	20 mm CNX64-3.2-(2)-A	0	3.9 / 100	
13	20 mm M200	0	3.9 / 100	
14	AF_250g	0	3.9 / 100	
15	UC-HEC300-E-PP	-45	3.9 / 100	
16	UC-HEC300-E-PP	45	3.9 / 100	
17	WC-400-E-PP	0	3.9 / 100	
18	UC-HEC300-E-PP	-85	3.9 / 100	



Material		$\alpha$	Area / Cov.	Comment
		[°]	[m <sup>2</sup> ] / [%]	
19	UC-HEC300-E-PP	90	3.9 / 100	
20	UC-HEC300-E-PP	0	3.9 / 100	
21	UC-HEC300-E-PP	-45	3.9 / 100	
22	UC-HEC300-E-PP	45	3.9 / 100	
23	UC-HEC300-E-PP	35	3.9 / 100	
24	WC-200-E-PP	0	3.9 / 100	

### 3.7.2.2 Bonding StackUp (Bonding)

Subcomponent Quantity: 2, Length: 9200 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Hull	Deck
		[°]	[mm] / [mm] / [%]		Bonding	Bonding
1	2mm EpoxyAdhesive	0	10 / 5600 / 60.87		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	R15 EpoxyAdhesive	0	5600 / 60.87		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3 - 4	2 x XC-300-E-V	45	120 / 5600 / 60.87		<input checked="" type="checkbox"/>	<input type="checkbox"/>
5 - 6	2 x XC-300-E-V	45	120 / 2200 / 23.91		<input checked="" type="checkbox"/>	<input type="checkbox"/>
7	WC-200-E-V	45	120 / 5600 / 60.87		<input checked="" type="checkbox"/>	<input type="checkbox"/>
8	2mm EpoxyAdhesive	0	10 / 3600 / 39.13		<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	R10 EpoxyAdhesive	0	3600 / 39.13		<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	WC-200-E-V	45	120 / 3600 / 39.13		<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	XC-300-E-V	45	120 / 3600 / 39.13		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity			[-]		1	1
Single Element Thickness			[mm]		3.75	2.62

### 3.7.2.3 Capping StackUp (Reinforcement)

Subcomponent Quantity: 1, Length: 5800 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Mast Reinforcement
		[°]	[mm] / [mm] / [%]		Reinforcement
1 - 5	5 x UC-HEC300-E-PP	0	20 / 5800 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		1.5

### 3.7.2.4 Capping Plank StackUp (Reinforcement)

Subcomponent Quantity: 2, Length: 2250 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Bottom Capping
		[°]	[mm] / [mm] / [%]		Reinforcement
1 - 12	12 x UC-HEC300-E-PP	0	50 / 2250 / 100		<input checked="" type="checkbox"/>
13 - 14	2 x XC-300-E-V	0	50 / 2250 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		4.35

### 3.8 1105-BHD D (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.8.1 1105-BHD D Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	XC-300-E-PP	Ply	0.24	0.26	0.11	0.13	0	0
2	AF_250g	Ply	8.65	9.54	2.64	2.91	0	0
3	UC-HEC300-E-PP	Ply	72.16	79.56	33.11	36.87	0	0
4	WC-200-E-PP	Ply	8.61	9.49	2.78	3.09	0	0
5	WC-200-E-V	Ply	2.37	2.66	0.89	1.05	0.51	0.53
6	WC-400-E-PP	Ply	8.61	9.49	5.68	6.32	0	0
7	XC-300-E-V	Ply	5.47	6.14	3.07	3.62	1.76	1.84
8	20 mm CNX64-3.2-(2)-A	Core	4.2	4.85	5.59	6.15	0	0
9	20 mm M200	Core	4.2	4.85	17.14	18.85	0	0
10	EpoxyAdhesive	Homogen	0	0	1.35	1.49	0	0

Core Weights include Resin Weight due to core resin consumption.

#### 1105-BHD D Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> ] / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	Bulkhead C D	Surface Element	4.2 / -	64.64	1	1
2	Bonding	Bonding	- / 9500	2.66	2	2
3	Bottom Capping	Reinforcement	- / 2300	0.81	2	2
4	Capping	Reinforcement	- / 5000	0.23	1	1

#### 3.8.2 1105-BHD D Stacking

##### 3.8.2.1 Bulkhead C D StackUp (Surface Element)

Area: 4.2 [m<sup>2</sup>] Component Area Percentage: 100 [%]

Material		$\alpha$	Area / Cov.	Comment
		[°]	[m <sup>2</sup> ] / [%]	
1	WC-200-E-PP	0	4.2 / 100	
2	UC-HEC300-E-PP	35	4.2 / 100	
3	UC-HEC300-E-PP	45	4.2 / 100	
4	UC-HEC300-E-PP	-45	4.2 / 100	
5	UC-HEC300-E-PP	0	4.2 / 100	
6	UC-HEC300-E-PP	90	4.2 / 100	
7	UC-HEC300-E-PP	-85	4.2 / 100	
8	WC-400-E-PP	0	4.2 / 100	
9	UC-HEC300-E-PP	45	4.2 / 100	
10	UC-HEC300-E-PP	-45	4.2 / 100	
11	AF_250g	0	4.2 / 100	
12	20 mm CNX64-3.2-(2)-A	0	4.2 / 100	
13	20 mm M200	0	4.2 / 100	
14	AF_250g	0	4.2 / 100	
15	UC-HEC300-E-PP	-45	4.2 / 100	
16	UC-HEC300-E-PP	45	4.2 / 100	
17	WC-400-E-PP	0	4.2 / 100	

Material		$\alpha$	Area / Cov.	Comment
		[°]	[m <sup>2</sup> ] / [%]	
18	UC-HEC300-E-PP	-85	4.2 / 100	
19	UC-HEC300-E-PP	90	4.2 / 100	
20	UC-HEC300-E-PP	0	4.2 / 100	
21	UC-HEC300-E-PP	-45	4.2 / 100	
22	UC-HEC300-E-PP	45	4.2 / 100	
23	UC-HEC300-E-PP	35	4.2 / 100	
24	WC-200-E-PP	0	4.2 / 100	

### 3.8.2.2 Bonding StackUp (Bonding)

Subcomponent Quantity: 2, Length: 9500 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Hull	Deck
		[°]	[mm] / [mm] / [%]		Bonding	Bonding
1	2mm EpoxyAdhesive	0	10 / 5700 / 60		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	R15 EpoxyAdhesive	0	5700 / 60		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3 - 4	2 x XC-300-E-V	45	120 / 5700 / 60		<input checked="" type="checkbox"/>	<input type="checkbox"/>
5 - 6	2 x XC-300-E-V	45	120 / 3350 / 35.26		<input checked="" type="checkbox"/>	<input type="checkbox"/>
7	WC-200-E-V	45	120 / 5700 / 60		<input checked="" type="checkbox"/>	<input type="checkbox"/>
8	2mm EpoxyAdhesive	0	10 / 3800 / 40		<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	R10 EpoxyAdhesive	0	3800 / 40		<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	XC-300-E-V	45	120 / 3800 / 40		<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	WC-200-E-V	45	120 / 3800 / 40		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity			[-]		1	1
Single Element Thickness			[mm]		3.75	2.62

### 3.8.2.3 Bottom Capping StackUp (Reinforcement)

Subcomponent Quantity: 2, Length: 2300 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Bottom Capping
		[°]	[mm] / [mm] / [%]		Reinforcement
1 - 7	7 x UC-HEC300-E-PP	0	50 / 2300 / 100		<input checked="" type="checkbox"/>
8	XC-300-E-PP	0	50 / 2300 / 100		<input checked="" type="checkbox"/>
9 - 15	7 x UC-HEC300-E-PP	0	50 / 2300 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		4.53

### 3.8.2.4 Capping StackUp (Reinforcement)

Subcomponent Quantity: 1, Length: 5000 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Capping
		[°]	[mm] / [mm] / [%]		Reinforcement
1 - 5	5 x UC-HEC300-E-PP	0	20 / 5000 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		1.5

### 3.9 1103-BHD B (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.9.1 1103-BHD B Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	AF_150g	Ply	3.59	3.96	0.66	0.72	0	0
2	UC-HEC200-E-PP	Ply	10.63	11.72	3.25	3.62	0	0
3	UC-HEC300-E-PP	Ply	0.96	1.06	0.44	0.49	0	0
4	WC-200-E-PP	Ply	7.14	7.87	2.3	2.56	0	0
5	WC-200-E-V	Ply	1.41	1.58	0.53	0.62	0.3	0.32
6	XC-300-E-V	Ply	1.2	1.35	0.67	0.79	0.39	0.4
7	15 mm CNX48-4.0-(2)-A	Core	1.74	2.01	1.3	1.43	0	0
8	EpoxyAdhesive	Homogen	0	0	0.8	0.89	0	0

Core Weights include Resin Weight due to core resin consumption.

#### 1103-BHD B Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> ] / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	Bulkheads A B E	Surface Element	1.74 / -	7.47	1	1
2	Bonding	Bonding	- / 6000	1	2	2
3	Capping	Reinforcement	- / 1000	0.44	1	1

#### 3.9.2 1103-BHD B Stacking

##### 3.9.2.1 Bulkheads A B E StackUp (Surface Element)

Area: 1.74 [m<sup>2</sup>] Component Area Percentage: 100 [%]

Material		$\alpha$	Area / Cov.	Comment
		[°]	[m <sup>2</sup> ] / [%]	
1 - 2	2 x WC-200-E-PP	0	1.74 / 100	
3	UC-HEC200-E-PP	0	1.74 / 100	
4	UC-HEC200-E-PP	45	1.74 / 100	
5	UC-HEC200-E-PP	-45	1.74 / 100	
6	AF_150g	0	1.74 / 100	
7	15 mm CNX48-4.0-(2)-A	0	1.74 / 100	
8	AF_150g	0	1.74 / 100	
9	UC-HEC200-E-PP	-45	1.74 / 100	
10	UC-HEC200-E-PP	45	1.74 / 100	
11	UC-HEC200-E-PP	0	1.74 / 100	
12	WC-200-E-PP	45	1.74 / 100	
13	WC-200-E-PP	0	1.74 / 100	

##### 3.9.2.2 Bonding StackUp (Bonding)

Subcomponent Quantity: 2, Length: 6000 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Hull	Deck
		[°]	[mm] / [mm] / [%]		Bonding	Bonding
1	R15 EpoxyAdhesive	0	4078.8 / 67.98		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	2mm EpoxyAdhesive	0	8 / 4079 / 67.98		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	XC-300-E-V	45	100 / 4079 / 67.98		<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	WC-200-E-V	45	100 / 4079 / 67.98		<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	WC-200-E-V	45	100 / 1000 / 16.67		<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	2mm EpoxyAdhesive	0	8 / 1687 / 28.12		<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	R10 EpoxyAdhesive	0	1687 / 28.12		<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	XC-300-E-V	45	100 / 1687 / 28.12		<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	WC-200-E-V	45	100 / 1687 / 28.12		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity			[-]		1	1
Single Element Thickness			[mm]		2.88	2.62

### 3.9.2.3 Capping StackUp (Reinforcement)

Subcomponent Quantity: 1, Length: 1000 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Capping
		[°]	[mm] / [mm] / [%]		Reinforcement
1 - 7	7 x UC-HEC300-E-PP	0	30 / 4480 / 448		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		2.1

### 3.10 1102-BHD A (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.10.1 1102-BHD A Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	AF_150g	Ply	2.42	2.67	0.44	0.49	0	0
2	UC-HEC200-E-PP	Ply	7.17	7.91	2.19	2.44	0	0
3	UC-HEC300-E-PP	Ply	0.68	0.75	0.31	0.35	0	0
4	WC-200-E-PP	Ply	4.82	5.31	1.55	1.73	0	0
5	WC-200-E-V	Ply	1.41	1.58	0.53	0.62	0.3	0.32
6	XC-300-E-V	Ply	1.2	1.35	0.67	0.79	0.38	0.4
7	15 mm CNX48-4.0-(2)-A	Core	1.18	1.36	0.88	0.97	0	0
8	EpoxyAdhesive	Homogen	0	0	0.65	0.71	0	0

Core Weights include Resin Weight due to core resin consumption.

#### 1102-BHD A Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> ] / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	Bulkheads A B E	Surface Element	1.18 / -	5.04	1	1
2	Bonding	Bonding	- / 5766	0.92	2	2
3	Capping	Reinforcement	- / 4480	0.31	1	1

#### 3.10.2 1102-BHD A Stacking

##### 3.10.2.1 Bulkheads A B E StackUp (Surface Element)

Area: 1.18 [m<sup>2</sup>] Component Area Percentage: 100 [%]

Material	$\alpha$	Area / Cov.	Comment		
	[°]	[m <sup>2</sup> ] / [%]			
1 - 2		2 x WC-200-E-PP	0	1.18 / 100	
3		UC-HEC200-E-PP	0	1.18 / 100	
4		UC-HEC200-E-PP	45	1.18 / 100	
5		UC-HEC200-E-PP	-45	1.18 / 100	
6		AF_150g	0	1.18 / 100	
7		15 mm CNX48-4.0-(2)-A	0	1.18 / 100	
8		AF_150g	0	1.18 / 100	
9		UC-HEC200-E-PP	-45	1.18 / 100	
10		UC-HEC200-E-PP	45	1.18 / 100	
11		UC-HEC200-E-PP	0	1.18 / 100	
12		WC-200-E-PP	45	1.18 / 100	
13		WC-200-E-PP	0	1.18 / 100	

##### 3.10.2.2 Bonding StackUp (Bonding)

Subcomponent Quantity: 2, Length: 5766 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Hull	Deck
		[°]	[mm] / [mm] / [%]		Bonding	Bonding
1	2mm EpoxyAdhesive	0	8 / 1684 / 29.21		<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	R15 EpoxyAdhesive	0	1684 / 29.21		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	WC-200-E-V	45	100 / 1684 / 29.21		<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	XC-300-E-V	45	100 / 1684 / 29.21		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	2mm EpoxyAdhesive	0	8 / 4079 / 70.74		<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	R10 EpoxyAdhesive	0	4079 / 70.74		<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	XC-300-E-V	45	100 / 4079 / 70.74		<input checked="" type="checkbox"/>	<input type="checkbox"/>
8	WC-200-E-V	45	100 / 4079 / 70.74		<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	WC-200-E-V	45	100 / 1000 / 17.34		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Element Quantity			[-]		1	1
Single Element Thickness			[mm]		2.88	2.62

### 3.10.2.3 Capping StackUp (Reinforcement)

Subcomponent Quantity: 1, Length: 4480 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Capping
		[°]	[mm] / [mm] / [%]		Reinforcement
1 - 5	5 x UC-HEC300-E-PP	0	30 / 4480 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		1.5

### 3.11 Aft Bottom Panel F-Transom (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.11.1 Aft Bottom Panel F-Transom Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	AF_150g	Ply	0.27	0.3	0.05	0.05	0	0
2	UC-HEC150-E-PP	Ply	4.11	4.53	1.01	1.12	0	0
3	UC-HEC300-E-PP	Ply	1.35	1.49	0.62	0.69	0	0
4	WC-200-E-PP	Ply	0.27	0.29	0.09	0.1	0	0
5	WC-200-E-V	Ply	3.91	4.39	1.46	1.73	0.84	0.88
6	20 mm CKX40-3.2-(1.4)-A	Core	0.52	0.6	0.43	0.47	0	0
7	20 mm FC60	Core	0.39	0.45	0.47	0.52	0	0
8	EpoxyAdhesive	Homogen	0	0	0.98	1.08	0	0

Core Weights include Resin Weight due to core resin consumption.

#### Aft Bottom Panel F-Transom Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	aft bottom stringer F-transom	Beam	- / 1300	0.48	2	2
2	aft bottom stringer F-transom Deck	Beam	- / 1300	0.56	2	2
3	Verticals	Beam	- / 650	0.15	4	4
4	BHD bonding	Bonding	- / 850	0.09	8	8
5	Deck	Bonding	- / 1500	0.19	4	4
6	Hull	Bonding	- / 1500	0.24	4	4

#### 3.11.2 Aft Bottom Panel F-Transom Stacking

##### 3.11.2.1 aft bottom stringer F-transom StackUp (Beam)

Subcomponent Quantity: 2, Length: 1300 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Shear Web	Capping
		[°]	[mm] / [mm] / [%]		ShearWeb	Capping
1	UC-HEC150-E-PP	45	180 / 1300 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	UC-HEC150-E-PP	-45	180 / 1300 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	20 mm CKX40-3.2-(1.4)-A	0	148 / 1300 / 100	SHEAR WEB CORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	UC-HEC150-E-PP	45	158 / 1300 / 100	SHEAR WEB SKIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Element Quantity			[-]		1	1
Single Element Thickness			[mm]		20.64	1.8
Average Lap Distance			[mm]		0	0
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]		0	0



Material	$\alpha$	Width / Leng. / Cov.	Comment	Shear Web	Capping	
	[°]	[mm] / [mm] / [%]		ShearWeb	Capping	
			(LAP ON BOTTOM FACE OF CAPPING)			
5	UC-HEC150-E-PP	-45	158 / 1300 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 - 11	6 x UC-HEC300-E-PP	0	30 / 1300 / 100	BEAM CAPPING	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity		[-]		1	1	
Single Element Thickness		[mm]		20.64	1.8	
Average Lap Distance		[mm]		0	0	
Bonding Tape Radius (Radius used for bonding plies width calculation)		[mm]		0	0	

### 3.11.2.2 aft bottom stringer F-transom Deck StackUp (Beam)

Subcomponent Quantity: 2, Length: 1300 [mm]

Material	$\alpha$	Width / Leng. / Cov.	Comment	Shear Web	Capping	
	[°]	[mm] / [mm] / [%]		ShearWeb	Capping	
1	UC-HEC150-E-PP	45	180 / 1300 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	UC-HEC150-E-PP	-45	180 / 1300 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	20 mm FC60	0	148 / 1300 / 100	SHEAR WEB CORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	UC-HEC150-E-PP	45	158 / 1300 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	UC-HEC150-E-PP	-45	158 / 1300 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 - 11	6 x UC-HEC300-E-PP	0	30 / 1300 / 100	BEAM CAPPING	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity		[-]		1	1	
Single Element Thickness		[mm]		20.64	1.8	
Average Lap Distance		[mm]		0	0	
Bonding Tape Radius (Radius used for bonding plies width calculation)		[mm]		0	0	

### 3.11.2.3 Verticals StackUp (Beam)

Subcomponent Quantity: 4, Length: 650 [mm]

Material	$\alpha$	Width / Leng. / Cov.	Comment	Capping	Web
	[°]	[mm] / [mm] / [%]		Reinforcement	ShearWeb
1	R8 EpoxyAdhesive	0	650 / 100	<input checked="" type="checkbox"/>	<input type="checkbox"/>

2 - 6	5 x UC-HEC300-E-PP	0	30 / 650 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>
7	WC-200-E-PP	0	50 / 650 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	UC-HEC150-E-PP	45	50 / 650 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	UC-HEC150-E-PP	-45	50 / 650 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	AF_150g	0	50 / 650 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	20 mm CKX40-3.2-(1.4)-A	0	50 / 650 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	AF_150g	0	50 / 650 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	UC-HEC150-E-PP	-45	50 / 650 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	UC-HEC150-E-PP	45	50 / 650 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
15	WC-200-E-PP	0	50 / 650 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity			[-]		1	1
Single Element Thickness			[mm]		1.5	21.38
Average Lap Distance			[mm]		0	0
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]		0	0

#### 3.11.2.4 BHD bonding StackUp (Bonding)

Subcomponent Quantity: 8, Length: 850 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	BHD bonding
		[°]	[mm] / [mm] / [%]		Bonding
1 - 2	2 x WC-200-E-V	45	100 / 850 / 100		<input checked="" type="checkbox"/>
3	R10 EpoxyAdhesive	0	850 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		0.5

#### 3.11.2.5 Deck StackUp (Bonding)

Subcomponent Quantity: 4, Length: 1500 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Deck
		[°]	[mm] / [mm] / [%]		Bonding
1 - 2	2 x WC-200-E-V	45	100 / 1500 / 100		<input checked="" type="checkbox"/>
3	R10 EpoxyAdhesive	0	1500 / 100		<input checked="" type="checkbox"/>
4	2mm EpoxyAdhesive	0	8 / 1500 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		2.5

#### 3.11.2.6 Hull StackUp (Bonding)

Subcomponent Quantity: 4, Length: 1500 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Hull
		[°]	[mm] / [mm] / [%]		Bonding
1 - 2	2 x WC-200-E-V	45	100 / 1500 / 100		<input checked="" type="checkbox"/>
3	R15 EpoxyAdhesive	0	1500 / 100		<input checked="" type="checkbox"/>
4	2mm EpoxyAdhesive	0	8 / 1500 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		2.5

### 3.12 Aft Bottom Stringer DE (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.12.1 Aft Bottom Stringer DE Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	XC-300-E-PP	Ply	3.12	3.44	1.51	1.68	0	0
2	UC-HEC300-E-PP	Ply	4.05	4.46	1.86	2.07	0	0
3	WC-200-E-V	Ply	0.84	0.94	0.31	0.37	0.18	0.19
4	XC-300-E-V	Ply	0.84	0.94	0.47	0.55	0.27	0.28
5	15 mm CKX40-3.2-(1.4)-A	Core	0.89	1.03	0.56	0.61	0	0
6	EpoxyAdhesive	Homogen	0	0	0.64	0.7	0	0

Core Weights include Resin Weight due to core resin consumption.

#### Aft Bottom Stringer DE Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	mid bottom stringer DE	Beam	- / 2009.82	1.26	2	2
2	mid bottom stringer DE side tapes- for capping joint	Beam	- / 2009.82	1.38	1	1
3	Hull	Bonding	- / 2009	0.36	4	4

#### 3.12.2 Aft Bottom Stringer DE Stacking

##### 3.12.2.1 mid bottom stringer DE StackUp (Beam)

Subcomponent Quantity: 2, Length: 2009.82 [mm]

Material	$\alpha$	Width / Leng. / Cov.	Comment	Shear Web	Inner Skin	Capping	
	[°]	[mm] / [mm] / [%]		ShearWeb	Reinforcement	Capping	
1 - 2	2 x XC-300-E-PP	45	180 / 2009.82 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	15 mm CKX40-3.2-(1.4)-A	0	147 / 2009.82 / 100	SHEAR WEB CORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	XC-300-E-PP	45	162 / 2009.82 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 - 7	3 x UC-HEC300-E-PP	0	100 / 2009.82 / 100	INNER SKIN REINFORCEMENT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8 - 17	10 x UC-HEC300-E-PP	0	30 / 2009.82 / 100	BEAM CAPPING	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity			[-]		1	1	1
Single Element Thickness			[mm]		15.99	0.9	3
Average Lap Distance			[mm]		0	0	0
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]		0	0	0

##### 3.12.2.2 mid bottom stringer DE side tapes- for capping joint StackUp (Beam)

Subcomponent Quantity: 1, Length: 2009.82 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Shear Web	Inner Skin	Side Tapes
		[°]	[mm] / [mm] / [%]		ShearWeb	Reinforcement	SideTape
1 - 2	2 x XC-300-E-PP	45	158 / 2009.82 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	15 mm CKX40-3.2-(1.4)-A	0	150 / 2009.82 / 100	SHEAR WEB CORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	XC-300-E-PP	45	158 / 2009.82 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 - 7	3 x UC-HEC300-E-PP	0	100 / 2009.82 / 100	INNER SKIN REINFORCEMENT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8 - 23	16 x UC-HEC300-E-PP	0	30 / 2009.82 / 100	SIDE TAPES (TOTAL # - BOTH SHEAR WEBS)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity			[-]		1	1	1
Single Element Thickness			[mm]		15.99	0.9	4.8
Average Lap Distance			[mm]		0	0	0
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]		0	0	0

### 3.12.2.3 Hull StackUp (Bonding)

Subcomponent Quantity: 4, Length: 2009 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Hull
		[°]	[mm] / [mm] / [%]		Bonding
1	R15 EpoxyAdhesive	0	2009 / 100		<input checked="" type="checkbox"/>
2	2mm EpoxyAdhesive	0	8 / 2009 / 100		<input checked="" type="checkbox"/>
3	XC-300-E-V	45	100 / 2009 / 100		<input checked="" type="checkbox"/>
4	WC-200-E-V	45	100 / 2009 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		2.62

### 3.13 Aft Topside Stringer EF (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.13.1 Aft Topside Stringer EF Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	UC-HEC200-E-PP	Ply	5.98	6.59	1.83	2.04	0	0
2	UC-HEC300-E-PP	Ply	8.21	9.06	3.77	4.2	0	0
3	WC-200-E-V	Ply	1.46	1.64	0.55	0.64	0.31	0.33
4	XC-300-E-V	Ply	2.91	3.27	1.64	1.93	0.94	0.98
5	15 mm CKX40-3.2-(1.4)-A	Core	0.57	0.66	0.36	0.39	0	0
6	EpoxyAdhesive	Homogen	0	0	1.11	1.23	0	0

Core Weights include Resin Weight due to core resin consumption.

#### Aft Topside Stringer EF Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	aft topsides stringer EF	Beam	- / 3510	5.94	1	1
2	Hull	Bonding	- / 3500	0.82	4	4

#### 3.13.2 Aft Topside Stringer EF Stacking

##### 3.13.2.1 aft topsides stringer EF StackUp (Beam)

Subcomponent Quantity: 1, Length: 3510 [mm]

Material		α	Width / Leng. / Cov.	Comment	Shear Web	Inner Skin	Capping
		[°]	[mm] / [mm] / [%]		ShearWeb	Reinforcement	Capping
1	UC-HEC200-E-PP	45	220 / 3510 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	UC-HEC200-E-PP	-45	220 / 3510 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	UC-HEC200-E-PP	45	220 / 3510 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	UC-HEC200-E-PP	-45	220 / 3510 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	15 mm CKX40-3.2-(1.4)-A	0	163 / 3510 / 100	SHEAR WEB CORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	UC-HEC200-E-PP	45	198 / 3510 / 100	SHEAR WEB SKIN (LAP ON BOTTOM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Element Quantity			[-]		1	1	1
Single Element Thickness			[mm]		16.6	1.8	6.6
Average Lap Distance			[mm]		0	0	0
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]		0	0	0

Material	$\alpha$	Width / Leng. / Cov.	Comment	Shear Web	Inner Skin	Capping	
	[°]	[mm] / [mm] / [%]		ShearWeb	Reinforcement	Capping	
			FACE OF CAPPING)				
7	UC-HEC200-E-PP	-45	198 / 3510 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	UC-HEC200-E-PP	45	198 / 3510 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	UC-HEC200-E-PP	-45	198 / 3510 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 - 15	6 x UC-HEC300-E-PP	0	200 / 3510 / 100	INNER SKIN REINFORCEMENT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16 - 37	22 x UC-HEC300-E-PP	0	50 / 3510 / 100	BEAM CAPPING	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity			[-]		1	1	1
Single Element Thickness			[mm]		16.6	1.8	6.6
Average Lap Distance			[mm]		0	0	0
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]		0	0	0

### 3.13.2.2 Hull StackUp (Bonding)

Subcomponent Quantity: 4, Length: 3500 [mm]

Material	$\alpha$	Width / Leng. / Cov.	Comment	Hull
	[°]	[mm] / [mm] / [%]		Bonding
1 - 2	2 x XC-300-E-V	45	100 / 3500 / 100	<input checked="" type="checkbox"/>
3	WC-200-E-V	45	100 / 3500 / 100	<input checked="" type="checkbox"/>
4	R15 EpoxyAdhesive	0	3500 / 100	<input checked="" type="checkbox"/>
5	2mm EpoxyAdhesive	0	8 / 3500 / 100	<input checked="" type="checkbox"/>
Element Quantity			[-]	1
Single Element Thickness			[mm]	3

### 3.14 Aft Bottom panel EF (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.14.1 Aft Bottom panel EF Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	AF_150g	Ply	0.15	0.16	0.03	0.03	0	0
2	UC-HEC150-E-PP	Ply	7.88	8.68	1.93	2.15	0	0
3	UC-HEC300-E-PP	Ply	1.96	2.16	0.9	1	0	0
4	UC-IMC150-E-PP	Ply	0.81	0.9	0.18	0.2	0	0
5	WC-200-E-PP	Ply	1.48	1.63	0.48	0.53	0	0
6	WC-200-E-V	Ply	14.35	16.12	5.37	6.34	3.07	3.22
7	20 mm CKX40-3.2-(1.4)-A	Core	1.79	2.07	1.49	1.64	0	0
8	EpoxyAdhesive	Homogen	0	0	0.29	0.32	0	0

Core Weights include Resin Weight due to core resin consumption.

#### Aft Bottom panel EF Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	aft panel EF aft & fwd part	Beam	- / 1800	0.83	2	2
2	aft panel EF aft & fwd part on deck	Beam	- / 1650	0.47	2	2
3	Verticals EF	Beam	- / 800	0.37	6	6
4	Bhd E and F bonding	Bonding	- / 1000	0.1	8	8
5	Hull&Deck	Bonding	- / 3500	0.55	8	8
6	Capping joint	Reinforcement	- / 1000	0.1	4	4
7	Corner Tapes	Reinforcement	- / 1000	0.02	8	8

#### 3.14.2 Aft Bottom panel EF Stacking

##### 3.14.2.1 aft panel EF aft & fwd part StackUp (Beam)

Subcomponent Quantity: 2, Length: 1800 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Shear Web	Capping
		[°]	[mm] / [mm] / [%]		ShearWeb	Capping
1	UC-HEC150-E-PP	45	230 / 1800 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	UC-HEC150-E-PP	-45	230 / 1800 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	20 mm CKX40-3.2-(1.4)-A	0	198 / 1800 / 100	SHEAR WEB CORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	UC-HEC150-E-PP	45	208 / 1800 / 100	SHEAR WEB SKIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Element Quantity			[-]		1	1
Single Element Thickness			[mm]		20.64	1.8
Average Lap Distance			[mm]		0	0
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]		0	0

Material	$\alpha$	Width / Leng. / Cov.	Comment	Shear Web	Capping	
	[°]	[mm] / [mm] / [%]		ShearWeb	Capping	
			(LAP ON BOTTOM FACE OF CAPPING)			
5	UC-HEC150-E-PP	-45	208 / 1800 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 - 11	6 x UC-HEC300-E-PP	0	30 / 1800 / 100	BEAM CAPPING	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity		[-]		1	1	
Single Element Thickness		[mm]		20.64	1.8	
Average Lap Distance		[mm]		0	0	
Bonding Tape Radius (Radius used for bonding plies width calculation)		[mm]		0	0	

### 3.14.2.2 aft panel EF aft & fwd part on deck StackUp (Beam)

Subcomponent Quantity: 2, Length: 1650 [mm]

Material	$\alpha$	Width / Leng. / Cov.	Comment	Shear Web	Capping	
	[°]	[mm] / [mm] / [%]		ShearWeb	Capping	
1	UC-HEC150-E-PP	45	140 / 1650 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	UC-HEC150-E-PP	-45	140 / 1650 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	20 mm CKX40-3.2-(1.4)-A	0	108 / 1650 / 100	SHEAR WEB CORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	UC-HEC150-E-PP	45	118 / 1650 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	UC-HEC150-E-PP	-45	118 / 1650 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 - 10	5 x UC-HEC300-E-PP	0	30 / 1650 / 100	BEAM CAPPING	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity		[-]		1	1	
Single Element Thickness		[mm]		20.64	1.5	
Average Lap Distance		[mm]		0	0	
Bonding Tape Radius (Radius used for bonding plies width calculation)		[mm]		0	0	

### 3.14.2.3 Verticals EF StackUp (Beam)

Subcomponent Quantity: 6, Length: 800 [mm]

Material	$\alpha$	Width / Leng. / Cov.	Comment	Capping	Web
	[°]	[mm] / [mm] / [%]		Reinforcement	ShearWeb
1	R8 EpoxyAdhesive	0	800 / 100	<input checked="" type="checkbox"/>	<input type="checkbox"/>



2 - 6	5 x UC-HEC300-E-PP	0	30 / 800 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>
7	WC-200-E-PP	0	150 / 800 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	UC-HEC150-E-PP	45	150 / 800 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	UC-HEC150-E-PP	-45	150 / 800 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	AF_150g	0	15 / 800 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	20 mm CKX40-3.2-(1.4)-A	0	150 / 800 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	AF_150g	0	15 / 800 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	UC-HEC150-E-PP	-45	150 / 800 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	UC-HEC150-E-PP	45	150 / 800 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
15	WC-200-E-PP	0	150 / 800 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity			[-]		1	1
Single Element Thickness			[mm]		1.5	21.38
Average Lap Distance			[mm]		0	0
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]		0	0

#### 3.14.2.4 Bhd E and F bonding StackUp (Bonding)

Subcomponent Quantity: 8, Length: 1000 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Bhd e and F bonding
		[°]	[mm] / [mm] / [%]		Bonding
1 - 2	2 x WC-200-E-V	45	100 / 1000 / 100		<input checked="" type="checkbox"/>
3	R10 EpoxyAdhesive	0	1000 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		0.5

#### 3.14.2.5 Hull&Deck StackUp (Bonding)

Subcomponent Quantity: 8, Length: 3500 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Hull	Deck
		[°]	[mm] / [mm] / [%]		Bonding	Bonding
1 - 4	4 x WC-200-E-V	45	100 / 3500 / 100		<input type="checkbox"/>	<input type="checkbox"/>
Element Quantity			[-]		1	1
Single Element Thickness			[mm]		0.5	0.5

#### 3.14.2.6 Capping joint StackUp (Reinforcement)

Subcomponent Quantity: 4, Length: 1000 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Capping joint
		[°]	[mm] / [mm] / [%]		Reinforcement
1	UC-HEC300-E-PP	0	15 / 1000 / 100		<input checked="" type="checkbox"/>
2	WC-200-E-V	0	250 / 1000 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		0.55

#### 3.14.2.7 Corner Tapes StackUp (Reinforcement)

Subcomponent Quantity: 8, Length: 1000 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Corner Tapes
		[°]	[mm] / [mm] / [%]		Reinforcement
1	UC-IMC150-E-PP	0	100 / 1000 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		0.15

### 3.15 Aft Topside Stringer DE (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.15.1 Aft Topside Stringer DE Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	UC-HEC200-E-PP	Ply	3.13	3.45	0.96	1.07	0	0
2	UC-HEC300-E-PP	Ply	4.91	5.41	2.25	2.51	0	0
3	UC-HEC300-E-V_1	Ply	3.07	3.45	1.66	1.96	0.91	1.04
4	WC-200-E-V	Ply	0.84	0.94	0.31	0.37	0.18	0.19
5	XC-300-E-V	Ply	0.84	0.94	0.47	0.55	0.27	0.28
6	15 mm CKX40-3.2-(1.4)-A	Core	0.58	0.67	0.36	0.4	0	0
7	EpoxyAdhesive	Homogen	0	0	0.48	0.53	0	0

Core Weights include Resin Weight due to core resin consumption.

#### Aft Topside Stringer DE Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	mid topsides stringer DE	Beam	- / 2009.01	2.61	2	2
2	Hull	Bonding	- / 2009	0.32	4	4

#### 3.15.2 Aft Topside Stringer DE Stacking

##### 3.15.2.1 mid topsides stringer DE StackUp (Beam)

Subcomponent Quantity: 2, Length: 2009.01 [mm]

Material		α	Width / Leng. / Cov.	Comment	Shear Web	Inner Skin	Capping
		[°]	[mm] / [mm] / [%]		ShearWeb	Reinforcement	Capping
1	UC-HEC200-E-PP	45	200 / 2009.01 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	UC-HEC200-E-PP	-45	200 / 2009.01 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	15 mm CKX40-3.2-(1.4)-A	0	145 / 2009.01 / 100	SHEAR WEB CORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	UC-HEC200-E-PP	45	183 / 2009.01 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	UC-HEC200-E-PP	-45	183 / 2009.01 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Element Quantity			[-]		1	1	1
Single Element Thickness			[mm]		15.8	1.8	5.25
Average Lap Distance			[mm]		0	0	0
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]		0	0	0

Material		$\alpha$	Width / Leng. / Cov.	Comment	Shear Web	Inner Skin	Capping
		[°]	[mm] / [mm] / [%]		ShearWeb	Reinforcement	Capping
6 - 11	6 x UC-HEC300-E-PP	0	200 / 2009.01 / 100	INNER SKIN REINFORCEMENT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12 - 26	15 x UC-HEC300-E-V_1	0	50 / 2009.01 / 100	BEAM CAPPING	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity			[-]		1	1	1
Single Element Thickness			[mm]		15.8	1.8	5.25
Average Lap Distance			[mm]		0	0	0
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]		0	0	0

### 3.15.2.2 Hull StackUp (Bonding)

Subcomponent Quantity: 4, Length: 2009 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Hull
		[°]	[mm] / [mm] / [%]		Bonding
1	R15 EpoxyAdhesive	0	2009 / 100		<input checked="" type="checkbox"/>
2	XC-300-E-V	45	100 / 2009 / 100		<input checked="" type="checkbox"/>
3	WC-200-E-V	45	100 / 2009 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		0.62

### 3.16 Fwd Topside Stringer BC (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.16.1 Fwd Topside Stringer BC Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	XC-300-E-PP	Ply	1.57	1.73	0.76	0.85	0	0
2	UC-HEC300-E-PP	Ply	1.41	1.56	0.65	0.72	0	0
3	WC-200-E-V	Ply	0.72	0.81	0.27	0.32	0.15	0.16
4	XC-300-E-V	Ply	0.72	0.81	0.41	0.48	0.23	0.24
5	15 mm CKX40-3.2-(1.4)-A	Core	0.68	0.79	0.43	0.47	0	0
6	EpoxyAdhesive	Homogen	0	0	0.55	0.61	0	0

Core Weights include Resin Weight due to core resin consumption.

#### Fwd Topside Stringer BC Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	fwd topsides stringer BC	Beam	- / 1734.73	0.91	2	2
2	Hull	Bonding	- / 1734	0.31	4	4

#### 3.16.2 Fwd Topside Stringer BC Stacking

##### 3.16.2.1 fwd topsides stringer BC StackUp (Beam)

Subcomponent Quantity: 2, Length: 1734.73 [mm]

Material		α	Width / Leng. / Cov.	Comment	Shear Web	Inner Skin	Capping
		[°]	[mm] / [mm] / [%]		ShearWeb	Reinforcement	Capping
1	XC-300-E-PP	45	230 / 1734.73 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	15 mm CKX40-3.2-(1.4)-A	0	197 / 1734.73 / 100	SHEAR WEB CORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	XC-300-E-PP	45	212 / 1734.73 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	UC-HEC300-E-PP	0	100 / 1734.73 / 100	INNER SKIN REINFORCEMENT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5 - 14	10 x UC-HEC300-E-PP	0	30 / 1734.73 / 100	BEAM CAPPING	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity			[-]		1	1	1
Single Element Thickness			[mm]		15.66	0.3	3
Average Lap Distance			[mm]		0	0	0
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]		0	0	0

##### 3.16.2.2 Hull StackUp (Bonding)

Subcomponent Quantity: 4, Length: 1734 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Hull
		[°]	[mm] / [mm] / [%]		Bonding
1	XC-300-E-V	45	100 / 1734 / 100		<input checked="" type="checkbox"/>
2	WC-200-E-V	45	100 / 1734 / 100		<input checked="" type="checkbox"/>
3	R15 EpoxyAdhesive	0	1734 / 100		<input checked="" type="checkbox"/>
4	2mm EpoxyAdhesive	0	8 / 1734 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		2.62

### 3.17 Fwd Bottom Stringer BC (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.17.1 Fwd Bottom Stringer BC Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	UC-HEC200-E-PP	Ply	1.42	1.57	0.44	0.48	0	0
2	UC-HEC300-E-PP	Ply	1.19	1.31	0.54	0.61	0	0
3	WC-200-E-V	Ply	0.37	0.41	0.14	0.16	0.08	0.08
4	XC-300-E-V	Ply	0.37	0.41	0.21	0.24	0.12	0.12
5	20 mm CKX40-3.2-(1.4)-A	Core	0.31	0.36	0.26	0.28	0	0
6	EpoxyAdhesive	Homogen	0	0	0.28	0.31	0	0

Core Weights include Resin Weight due to core resin consumption.

#### Fwd Bottom Stringer BC Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	fwd bottom stringer BC mast step	Beam	- / 1764.75	1.23	1	1
2	Hull	Bonding	- / 1764	0.31	2	2

#### 3.17.2 Fwd Bottom Stringer BC Stacking

##### 3.17.2.1 fwd bottom stringer BC mast step StackUp (Beam)

Subcomponent Quantity: 1, Length: 1764.75 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Shear Web	Inner Skin	Capping
		[°]	[mm] / [mm] / [%]		ShearWeb	Reinforcement	Capping
1	UC-HEC200-E-PP	45	210 / 1764.75 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	UC-HEC200-E-PP	-45	210 / 1764.75 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	20 mm CKX40-3.2-(1.4)-A	0	176 / 1764.75 / 100	SHEAR WEB CORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	UC-HEC200-E-PP	45	186 / 1764.75 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	UC-HEC200-E-PP	-45	186 / 1764.75 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 - 8	3 x UC-HEC300-E-PP	0	100 / 1764.75 / 100	INNER SKIN	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Element Quantity			[-]		1	1	1
Single Element Thickness			[mm]		20.8	0.9	3.6
Average Lap Distance			[mm]		0	0	0
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]		0	0	0

Material	$\alpha$	Width / Leng. / Cov.	Comment	Shear Web	Inner Skin	Capping	
	[°]	[mm] / [mm] / [%]		ShearWeb	Reinforcement	Capping	
			REINFORCEMENT				
9 - 20	12 x UC-HEC300-E-PP	0	30 / 1764.75 / 100	BEAM CAPPING	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity			[-]	1	1	1	
Single Element Thickness			[mm]	20.8	0.9	3.6	
Average Lap Distance			[mm]	0	0	0	
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]	0	0	0	

### 3.17.2.2 Hull StackUp (Bonding)

Subcomponent Quantity: 2, Length: 1764 [mm]

Material	$\alpha$	Width / Leng. / Cov.	Comment	Hull
	[°]	[mm] / [mm] / [%]		Bonding
1	XC-300-E-V	0	100 / 1764 / 100	<input checked="" type="checkbox"/>
2	WC-200-E-V	45	100 / 1764 / 100	<input checked="" type="checkbox"/>
3	R15 EpoxyAdhesive	0	1764 / 100	<input checked="" type="checkbox"/>
4	2mm EpoxyAdhesive	0	8 / 1764 / 100	<input checked="" type="checkbox"/>
Element Quantity			[-]	1
Single Element Thickness			[mm]	2.62



### 3.18 Fwd Topside Stringer AB (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.18.1 Fwd Topside Stringer AB Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	UC-HEC200-E-PP	Ply	4.01	4.42	1.23	1.37	0	0
2	UC-HEC300-E-PP	Ply	3.27	3.61	1.5	1.67	0	0
3	WC-200-E-V	Ply	0.93	1.04	0.35	0.41	0.2	0.21
4	XC-300-E-V	Ply	0.93	1.04	0.52	0.62	0.3	0.31
5	15 mm CKX40-3.2-(1.4)-A	Core	0.87	1.01	0.55	0.6	0	0
6	EpoxyAdhesive	Homogen	0	0	0.71	0.78	0	0

Core Weights include Resin Weight due to core resin consumption.

#### Fwd Topside Stringer AB Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	fwd topsides stringer AB	Beam	- / 2233.89	1.63	2	2
2	Hull	Bonding	- / 2233	0.39	4	4

#### 3.18.2 Fwd Topside Stringer AB Stacking

##### 3.18.2.1 fwd topsides stringer AB StackUp (Beam)

Subcomponent Quantity: 2, Length: 2233.89 [mm]

Material		α	Width / Leng. / Cov.	Comment	Shear Web	Inner Skin	Capping
		[°]	[mm] / [mm] / [%]		ShearWeb	Reinforcement	Capping
1	UC-HEC200-E-PP	45	230 / 2233.89 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	UC-HEC200-E-PP	-45	230 / 2233.89 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	15 mm CKX40-3.2-(1.4)-A	0	196 / 2233.89 / 100	SHEAR WEB CORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	UC-HEC200-E-PP	45	211 / 2233.89 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	UC-HEC200-E-PP	-45	211 / 2233.89 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 - 8	3 x UC-HEC300-E-PP	0	100 / 2233.89 / 100	INNER SKIN	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Element Quantity			[-]		1	1	1
Single Element Thickness			[mm]		15.8	0.9	4.2
Average Lap Distance			[mm]		0	0	0
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]		0	0	0

Material	$\alpha$	Width / Leng. / Cov.	Comment	Shear Web	Inner Skin	Capping	
	[°]	[mm] / [mm] / [%]		ShearWeb	Reinforcement	Capping	
			REINFORCEMENT				
9 - 22	14 x UC-HEC300-E-PP	0	30 / 2233.89 / 100	BEAM CAPPING	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity			[-]	1	1	1	
Single Element Thickness			[mm]	15.8	0.9	4.2	
Average Lap Distance			[mm]	0	0	0	
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]	0	0	0	

### 3.18.2.2 Hull StackUp (Bonding)

Subcomponent Quantity: 4, Length: 2233 [mm]

Material	$\alpha$	Width / Leng. / Cov.	Comment	Hull
	[°]	[mm] / [mm] / [%]		Bonding
1	XC-300-E-V	45	100 / 2233 / 100	<input checked="" type="checkbox"/>
2	WC-200-E-V	45	100 / 2233 / 100	<input checked="" type="checkbox"/>
3	R15 EpoxyAdhesive	0	2233 / 100	<input checked="" type="checkbox"/>
4	2mm EpoxyAdhesive	0	8 / 2233 / 100	<input checked="" type="checkbox"/>
Element Quantity			[-]	1
Single Element Thickness			[mm]	2.62

### 3.19 Fwd Bottom Stringer AB (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.19.1 Fwd Bottom Stringer AB Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	UC-HEC200-E-PP	Ply	1.6	1.76	0.49	0.54	0	0
2	UC-HEC300-E-PP	Ply	1.66	1.83	0.76	0.85	0	0
3	WC-200-E-V	Ply	0.45	0.51	0.17	0.2	0.1	0.1
4	XC-300-E-V	Ply	0.45	0.51	0.25	0.3	0.15	0.15
5	15 mm CKX40-3.2-(1.4)-A	Core	0.34	0.39	0.21	0.23	0	0
6	EpoxyAdhesive	Homogen	0	0	0.35	0.38	0	0

Core Weights include Resin Weight due to core resin consumption.

#### Fwd Bottom Stringer AB Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	fwd bottom stringer AB	Beam	- / 2174.39	1.45	1	1
2	Hull	Bonding	- / 2174	0.38	2	2

#### 3.19.2 Fwd Bottom Stringer AB Stacking

##### 3.19.2.1 fwd bottom stringer AB StackUp (Beam)

Subcomponent Quantity: 1, Length: 2174.39 [mm]

Material		α	Width / Leng. / Cov.	Comment	Shear Web	Inner Skin	Capping
		[°]	[mm] / [mm] / [%]		ShearWeb	Reinforcement	Capping
1	UC-HEC200-E-PP	45	190 / 2174.39 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	UC-HEC200-E-PP	-45	190 / 2174.39 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	15 mm CKX40-3.2-(1.4)-A	0	155 / 2174.39 / 100	SHEAR WEB CORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	UC-HEC200-E-PP	45	170 / 2174.39 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	UC-HEC200-E-PP	-45	170 / 2174.39 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 - 8	3 x UC-HEC300-E-PP	0	100 / 2174.39 / 100	INNER SKIN REINFORCEMENT	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Element Quantity			[-]		1	1	1
Single Element Thickness			[mm]		15.8	0.9	4.5
Average Lap Distance			[mm]		0	0	0
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]		0	0	0

Material	$\alpha$	Width / Leng. / Cov.	Comment	Shear Web	Inner Skin	Capping
	[°]	[mm] / [mm] / [%]		ShearWeb	Reinforcement	Capping
9 - 23   15 x UC-HEC300-E-PP	0	30 / 2174.39 / 100	BEAM CAPPING	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity		[-]		1	1	1
Single Element Thickness		[mm]		15.8	0.9	4.5
Average Lap Distance		[mm]		0	0	0
Bonding Tape Radius (Radius used for bonding plies width calculation)		[mm]		0	0	0

### 3.19.2.2 Hull StackUp (Bonding)

Subcomponent Quantity: 2, Length: 2174 [mm]

Material	$\alpha$	Width / Leng. / Cov.	Comment	Hull
	[°]	[mm] / [mm] / [%]		Bonding
1   XC-300-E-V	45	100 / 2174 / 100		<input checked="" type="checkbox"/>
2   WC-200-E-V	0	100 / 2174 / 100		<input checked="" type="checkbox"/>
3   R15 EpoxyAdhesive	0	2174 / 100		<input checked="" type="checkbox"/>
4   2mm EpoxyAdhesive	0	8 / 2174 / 100		<input checked="" type="checkbox"/>
Element Quantity		[-]		1
Single Element Thickness		[mm]		2.62

### 3.20 Jib Track Beams (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.20.1 Jib Track Beams Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	XC-300-E-PP	Ply	1.75	1.93	0.85	0.94	0	0
2	UC-HEC300-E-PP	Ply	0.77	0.85	0.35	0.4	0	0
3	WC-200-E-PP	Ply	1.27	1.4	0.41	0.45	0	0
4	WC-200-E-V	Ply	0.32	0.36	0.12	0.14	0.07	0.07
5	XC-300-E-V	Ply	0.32	0.36	0.18	0.21	0.1	0.11
6	20 mm CKX40-3.2-(1.4)-A	Core	0.19	0.22	0.16	0.17	0	0
7	EpoxyAdhesive	Homogen	0	0	0.23	0.25	0	0

Core Weights include Resin Weight due to core resin consumption.

#### Jib Track Beams Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> ] / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	Jib Track Beams	Beam	- / 950	1.14	2	2

#### 3.20.2 Jib Track Beams Stacking

##### 3.20.2.1 Jib Track Beams StackUp (Beam)

Subcomponent Quantity: 2, Length: 950 [mm]

Material	α	Width / Leng. / Cov.	Comment	Web	Capping	Bonding	Deck Patch
	[°]	[mm] / [mm] / [%]		ShearWeb	Reinforcement	Bonding	Reinforcement
1 - 2	2 x WC-200-E-PP	45 100 / 950 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 - 4	2 x XC-300-E-PP	45 100 / 950 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	20 mm CKX40-3.2-(1.4)-A	0 100 / 950 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 - 7	2 x XC-300-E-PP	45 100 / 950 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 - 9	2 x WC-200-E-PP	45 100 / 950 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 - 17	8 x UC-HEC300-E-PP	0 50 / 950 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 - 19	2 x WC-200-E-V	45 80 / 950 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
20	2 x XC-300-E-V	45 80 / 950 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Element Quantity		[-]		1	1	1	1
Single Element Thickness		[mm]		22.2	2.4	1.25	0.88
Average Lap Distance		[mm]		0	0	N/A	0
Bonding Tape Radius (Radius used for bonding plies width calculation)		[mm]		0	0	N/A	0

Material	$\alpha$	Width / Leng. / Cov.	Comment	Web	Capping	Bonding	Deck Patch
	[°]	[mm] / [mm] / [%]		ShearWeb	Reinforcement	Bonding	Reinforcement
- 21							
22 - 23	0	950 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
24 - 25	45	250 / 950 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
26	45	250 / 950 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity		[-]		1	1	1	1
Single Element Thickness		[mm]		22.2	2.4	1.25	0.88
Average Lap Distance		[mm]		0	0	N/A	0
Bonding Tape Radius (Radius used for bonding plies width calculation)		[mm]		0	0	N/A	0

### 3.21 Deck beam Coachroof (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.21.1 Deck beam Coachroof Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	UC-HEC150-E-PP	Ply	1.54	1.69	0.38	0.42	0	0
2	UC-HEC300-E-PP	Ply	0.5	0.55	0.23	0.25	0	0
3	WC-200-E-V	Ply	0.81	0.91	0.3	0.36	0.17	0.18
4	XC-300-E-V	Ply	0.81	0.91	0.45	0.54	0.26	0.27
5	15 mm CKX40-3.2-(1.4)-A	Core	0.31	0.35	0.19	0.21	0	0
6	EpoxyAdhesive	Homogen	0	0	0.36	0.4	0	0

Core Weights include Resin Weight due to core resin consumption.

#### Deck beam Coachroof Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	Coachroof support beam	Beam	- / 1950	0.39	2	2
2	Deck bonding	Bonding	- / 1942	0.28	4	4

#### 3.21.2 Deck beam Coachroof Stacking

##### 3.21.2.1 Coachroof support beam StackUp (Beam)

Subcomponent Quantity: 2, Length: 1950 [mm]

Material		α	Width / Leng. / Cov.	Comment	Shear Web	Capping
		[°]	[mm] / [mm] / [%]		ShearWeb	Capping
1	UC-HEC150-E-PP	45	105 / 1950 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	UC-HEC150-E-PP	-45	105 / 1950 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	15 mm CKX40-3.2-(1.4)-A	0	78 / 1950 / 100	SHEAR WEB CORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	UC-HEC150-E-PP	45	88 / 1950 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	UC-HEC150-E-PP	-45	88 / 1950 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 - 10	5 x UC-HEC300-E-PP	0	25 / 1950 / 100	BEAM CAPPING	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity			[-]		1	1
Single Element Thickness			[mm]		15.64	1.5
Average Lap Distance			[mm]		0	0
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]		0	0

### 3.21.2.2 Deck bonding StackUp (Bonding)

Subcomponent Quantity: 4, Length: 1942 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Deck bonding
		[°]	[mm] / [mm] / [%]		Bonding
1	XC-300-E-V	45	100 / 1942 / 100		<input checked="" type="checkbox"/>
2	WC-200-E-V	45	100 / 1942 / 100		<input checked="" type="checkbox"/>
3	R10 EpoxyAdhesive	0	1942 / 100		<input checked="" type="checkbox"/>
4	2mm EpoxyAdhesive	0	8 / 1942 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		2.62



### 3.22 Deck beam BC (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.22.1 Deck beam BC Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	UC-HEC150-E-PP	Ply	1.43	1.57	0.35	0.39	0	0
2	UC-HEC300-E-PP	Ply	0.38	0.42	0.18	0.19	0	0
3	WC-200-E-V	Ply	0.62	0.7	0.23	0.28	0.13	0.14
4	XC-300-E-V	Ply	0.62	0.7	0.35	0.41	0.2	0.21
5	15 mm CKX48-3.2-(1.8)-A	Core	0.3	0.34	0.22	0.24	0	0
6	EpoxyAdhesive	Homogen	0	0	0.28	0.31	0	0

Core Weights include Resin Weight due to core resin consumption.

#### Deck beam BC Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	Fortedeck beam	Beam	- / 1500	0.37	2	2
2	Deck bonding	Bonding	- / 1500	0.22	4	4

#### 3.22.2 Deck beam BC Stacking

##### 3.22.2.1 Fortedeck beam StackUp (Beam)

Subcomponent Quantity: 2, Length: 1500 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Shear Web	Capping
		[°]	[mm] / [mm] / [%]		ShearWeb	Capping
1	UC-HEC150-E-PP	45	125 / 1500 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	UC-HEC150-E-PP	-45	125 / 1500 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	20 mm CKX48-3.2-(1.8)-A	0	98 / 1500 / 100	SHEAR WEB CORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	UC-HEC150-E-PP	45	108 / 1500 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	UC-HEC150-E-PP	-45	108 / 1500 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 - 10	5 x UC-HEC300-E-PP	0	25 / 1500 / 100	BEAM CAPPING	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity			[-]		1	1
Single Element Thickness			[mm]		20.64	1.5
Average Lap Distance			[mm]		0	0
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]		0	0

### 3.22.2.2 Deck bonding StackUp (Bonding)

Subcomponent Quantity: 4, Length: 1500 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Deck bonding
		[°]	[mm] / [mm] / [%]		Bonding
1	XC-300-E-V	45	100 / 1500 / 100		<input checked="" type="checkbox"/>
2	WC-200-E-V	45	100 / 1500 / 100		<input checked="" type="checkbox"/>
3	R10 EpoxyAdhesive	0	1500 / 100		<input checked="" type="checkbox"/>
4	2mm EpoxyAdhesive	0	8 / 1500 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		2.62

### 3.23 Deck beam AB (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.23.1 Deck beam AB Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	UC-HEC150-E-PP	Ply	2.19	2.41	0.53	0.6	0	0
2	UC-HEC300-E-PP	Ply	0.59	0.65	0.27	0.3	0	0
3	WC-200-E-V	Ply	0.96	1.07	0.36	0.42	0.2	0.21
4	XC-300-E-V	Ply	0.96	1.07	0.54	0.63	0.31	0.32
5	15 mm CKX40-3.2-(1.4)-A	Core	0.45	0.52	0.28	0.31	0	0
6	EpoxyAdhesive	Homogen	0	0	0.43	0.47	0	0

Core Weights include Resin Weight due to core resin consumption.

#### Deck beam AB Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	Fortedeck beam Duplicate	Beam	- / 2300	0.54	2	2
2	Deck bonding	Bonding	- / 2300	0.33	4	4

#### 3.23.2 Deck beam AB Stacking

##### 3.23.2.1 Fortedeck beam Duplicate StackUp (Beam)

Subcomponent Quantity: 2, Length: 2300 [mm]

Material		α	Width / Leng. / Cov.	Comment	Shear Web	Capping
		[°]	[mm] / [mm] / [%]		ShearWeb	Capping
1	UC-HEC150-E-PP	45	125 / 2300 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	UC-HEC150-E-PP	-45	125 / 2300 / 100	SHEAR WEB SKIN (LAP ON TOP FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	15 mm CKX40-3.2-(1.4)-A	0	98 / 2300 / 100	SHEAR WEB CORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	UC-HEC150-E-PP	45	108 / 2300 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	UC-HEC150-E-PP	-45	108 / 2300 / 100	SHEAR WEB SKIN (LAP ON BOTTOM FACE OF CAPPING)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 - 10	5 x UC-HEC300-E-PP	0	25 / 2300 / 100	BEAM CAPPING	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity			[-]		1	1
Single Element Thickness			[mm]		15.64	1.5
Average Lap Distance			[mm]		0	0
Bonding Tape Radius (Radius used for bonding plies width calculation)			[mm]		0	0

### 3.23.2.2 Deck bonding StackUp (Bonding)

Subcomponent Quantity: 4, Length: 2300 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Deck bonding
		[°]	[mm] / [mm] / [%]		Bonding
1	R10 EpoxyAdhesive	0	2300 / 100		<input checked="" type="checkbox"/>
2	2mm EpoxyAdhesive	0	8 / 2300 / 100		<input checked="" type="checkbox"/>
3	XC-300-E-V	45	100 / 2300 / 100		<input checked="" type="checkbox"/>
4	WC-200-E-V	45	100 / 2300 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		2.62

### 3.24 C-Plates (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.24.1 C-Plates Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	WC-400-E-PP	Ply	13.32	14.69	8.79	9.78	0	0
2	XC-400-E-PP	Ply	13.32	14.69	8.79	9.78	0	0

Core Weights include Resin Weight due to core resin consumption.

C-Plates Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> ] / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	C-Plates	Reinforcement	- / 1000	17.57	1	1

#### 3.24.2 C-Plates Stacking

##### 3.24.2.1 C-Plates StackUp (Reinforcement)

Subcomponent Quantity: 1, Length: 1000 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Runner Winch
		[°]	[mm] / [mm] / [%]		Reinforcement
1	WC-400-E-PP	0	13000 / 1000 / 100		<input checked="" type="checkbox"/>
2	XC-400-E-PP	0	13000 / 1000 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		0.9

### 3.25 Hull Patches (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.25.1 Hull Patches Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	UC-HEC300-E-V_1	Ply	0.93	1.04	0.5	0.59	0.27	0.31
2	WC-400-E-V	Ply	3.87	4.35	2.9	3.42	1.66	1.74
3	XC-300-E-V	Ply	3.43	3.86	1.93	2.27	1.1	1.16
4	XC-400-E-V	Ply	3.87	4.35	2.9	3.42	1.66	1.74

Core Weights include Resin Weight due to core resin consumption.

#### Hull Patches Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> ] / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	Hull Patches	Reinforcement	- / 1000	8.22	1	1

#### 3.25.2 Hull Patches Stacking

##### 3.25.2.1 Hull Patches StackUp (Reinforcement)

Subcomponent Quantity: 1, Length: 1000 [mm]

Material		$\alpha$	Width / Leng. / Cov.	Comment	Hull Patches
		[°]	[mm] / [mm] / [%]		Reinforcement
1	XC-300-E-V	0	3300 / 1000 / 100		<input checked="" type="checkbox"/>
2	UC-HEC300-E-V_1	0	910 / 1000 / 100		<input checked="" type="checkbox"/>
3	XC-400-E-V	0	3720 / 1000 / 100		<input checked="" type="checkbox"/>
4	WC-400-E-V	0	3720 / 1000 / 100		<input checked="" type="checkbox"/>
Element Quantity			[-]		1
Single Element Thickness			[mm]		1.72

### 3.26 Box (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.26.1 Box Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	XC-300-E-PP	Ply	0.97	1.07	0.47	0.52	0	0
2	UC-HEC300-E-PP	Ply	28.49	31.41	13.07	14.56	0	0
3	WC-200-E-PP	Ply	1.44	1.58	0.46	0.52	0	0
4	WC-400-E-PP	Ply	16.14	17.8	10.64	11.85	0	0
5	WG-E300-E-PP	Ply	1.44	1.58	0.59	0.66	0	0
6	XC-400-E-PP	Ply	16.14	17.8	10.64	11.85	0	0
7	EpoxyAdhesive	Homogen	0	0	4.94	5.45	0	0

Core Weights include Resin Weight due to core resin consumption.

#### Box Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> ] / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	Box	Reinforcement	- / 1000	40.83	1	1

#### 3.26.2 Box Stacking

##### 3.26.2.1 Box StackUp (Reinforcement)

Subcomponent Quantity: 1, Length: 1000 [mm]

Material	$\alpha$	Width / Leng. / Cov.	Comment	Box
	[°]	[mm] / [mm] / [%]		Reinforcement
1	XC-300-E-PP	0 950 / 1000 / 100		<input checked="" type="checkbox"/>
2	UC-HEC300-E-PP	0 28000 / 1000 / 100		<input checked="" type="checkbox"/>
3	WC-200-E-PP	0 1400 / 1000 / 100		<input checked="" type="checkbox"/>
4	XC-400-E-PP	0 15750 / 1000 / 100		<input checked="" type="checkbox"/>
5	WC-400-E-PP	0 15750 / 1000 / 100		<input checked="" type="checkbox"/>
6	4mm EpoxyAdhesive	0 1000 / 1000 / 100		<input checked="" type="checkbox"/>
7	WG-E300-E-PP	0 1400 / 1000 / 100		<input checked="" type="checkbox"/>
Element Quantity		[-]		1
Single Element Thickness		[mm]		5.97

### 3.27 RUDDER (incl. Sub-components details)

Quantity: 1 (Including parent component quantity)

#### 3.27.1 RUDDER Unique Material List (Total quantities)

#	Material Name	Type	As Designed Area <sup>2</sup> [m <sup>2</sup> ]	Total Area <sup>1</sup> [m <sup>2</sup> ]	As Designed Weight <sup>2</sup> [kg]	Total Weight <sup>1</sup> [kg]	Total Resin Weight <sup>1</sup> [kg]	Total Fibre Weight <sup>1</sup> [kg]
1	XC-300-E-PP	Ply	1.46	1.6	0.7	0.78	0	0
2	UC-HEC200-E-PP	Ply	5.78	6.37	1.77	1.97	0	0
3	UC-IMC200-E-PP	Ply	46.3	51.04	13.75	15.31	0	0
4	WC-200-E-PP	Ply	1.46	1.6	0.47	0.52	0	0
5	XC-400-E-PP	Ply	0.16	0.18	0.11	0.12	0	0
6	20 mm M80	Core	1.2	1.39	2.08	2.29	0	0

Core Weights include Resin Weight due to core resin consumption.

#### RUDDER Subcomponents:

#	Name	Type	Unit Area / Unit Length [m <sup>2</sup> / [mm]	Unit Subcomponent Weight (Factored) <sup>2</sup> [kg]	Unit Quantity	Quantity (including component quantity)
1	Rudder	Reinforcement	- / 1000	18.84	1	1

#### 3.27.2 RUDDER Stacking

##### 3.27.2.1 Rudder StackUp (Reinforcement)

Subcomponent Quantity: 1, Length: 1000 [mm]

Material		α	Width / Leng. / Cov.	Comment	Shells	Core	Stock
		[°]	[mm] / [mm] / [%]		Reinforcement	Reinforcement	Reinforcement
1 - 2	2 x WC-200-E-PP	45	710 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 - 6	4 x UC-HEC200-E-PP	0	710 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 - 8	2 x XC-300-E-PP	45	710 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 - 10	2 x UC-HEC200-E-PP	30	710 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 - 12	2 x UC-HEC200-E-PP	-30	710 / 1000 / 100		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	20 mm M80	0	1200 / 1000 / 100		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14	UC-IMC200-E-PP	0	45500 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15	XC-400-E-PP	0	160 / 1000 / 100		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Element Quantity			[-]		1	1	1
Single Element Thickness			[mm]		2.7	20	0.65



## 4. BoM Material Details

### Cores

Name	$t_{pp}$ [mm]	$\rho$ [kg/m <sup>3</sup> ]	$A_m$ [g/m <sup>2</sup> ]	Sheet Width Sheet Length [mm]	Core Preprocessing Type	Paper/Film Type	Cell Shape / Grade
15 mm CKX40-3.2-(1.4)-A	15	40	600		-	-	- / -
15 mm CKX48-3.2-(1.8)-A	15	48	720		-	-	- / -
15 mm CNX48-4.0-(2)-A	15	48	720		-	-	- / -
20 mm CKX40-3.2-(1.4)-A	20	40	800		-	-	- / -
20 mm CNX48-4.0-(2)-A	20	48	960		-	-	- / -
20 mm CNX64-3.2-(2)-A	20	64	1280		-	-	- / -
20 mm FC60	20	60	1200		Plain (PL)	-	- / -
20 mm M200	20	200	4000		Plain (PL)	-	- / -
20 mm M80	20	85	1700		Pinholed (PH)	-	- / -
25 mm CNX64-3.2-(3)-A	25	64	1600		-	-	- / -

### Plies

Name	$t_{pp}$ [mm]	$A_m$ [g/m <sup>2</sup> ]	FVF	RWF	Material Type	Reinforcement Type	Matrix Type	Processing Type
XC-300-E-PP	0.33	488.4	0.52	0.386	Biaxials	HSC	Epoxy	Prepreg
AF_150g	0.15	183		-	Adhesivefilm			
AF_200g	0.2	244		-	Adhesivefilm			
AF_250g	0.25	305		-	Adhesivefilm			
UC-HEC150-E-PP	0.16	247.2	0.56	0.393	UD	HEC	Epoxy	Prepreg
UC-HEC200-E-PP	0.2	309	0.54	0.353	UD	HEC	Epoxy	Prepreg
UC-HEC200-E-V	0.233	336	0.48	0.405	UD	HEC	Epoxy	Hand layup Vacuum
UC-HEC300-E-PP	0.3	463.5	0.56	0.353	UD	HEC	Epoxy	Prepreg
UC-HEC300-E-V_1	0.35	504	0.48	0.405	UD	HEC	Epoxy	Hand layup Vacuum
UC-IMC150-E-PP	0.15	225	0.56	0.333	UD	IMC	Epoxy	Prepreg
UC-IMC200-E-PP	0.2	300	0.56	0.333	UD	IMC	Epoxy	Prepreg
WC-200-E-PP	0.22	325.6	0.51	0.386	Plain	HSC	Epoxy	Prepreg
WC-200-E-V	0.25	350	0.44	0.429	Plain	HSC	Epoxy	Hand layup Vacuum
WC-400-E-PP	0.45	666	0.51	0.399	Plain	HSC	Epoxy	Prepreg
WC-400-E-V	0.494	700	0.44	0.429	Plain	HSC	Epoxy	Hand layup Vacuum
WG-E300-E-PP	0.22	418	0.51	0.282	Plain	E-glass	Epoxy	Prepreg
XC-300-E-V	0.375	525	0.46	0.429	Biaxials	HSC	Epoxy	Hand layup Vacuum
XC-400-E-PP	0.45	666	0.52	0.399	Biaxials	HSC	Epoxy	Prepreg
XC-400-E-V	0.5	700	0.46	0.429	Biaxials	HSC	Epoxy	Hand layup Vacuum
XC-HEC200-E-PP	0.227	335.556	0.49	0.404	Biaxials	HEC	Epoxy	Prepreg

### Formulated Products

Name	$\rho$ [kg/m <sup>3</sup> ]
Epoxy W	1180
EpoxyAdhesive	1200

## Material Description

Type	Name	Description
Cores	15 mm CKX40-3.2-(1.4)-A	Hexagonal Kevlar Honeycomb, 1.4 mil paper, Cell Size 3.2 mil, Aerospace grade
	15 mm CKX48-3.2-(1.8)-A	Hexagonal Kevlar Honeycomb, 1.8 mil paper, Cell Size 3.2 mil, Aerospace grade
	15 mm CNX48-4.0-(2)-A	Hexagonal Nomex, 2 mil paper, Cell Size 4 mil, Aerospace grade
	20 mm CKX40-3.2-(1.4)-A	Hexagonal Kevlar Honeycomb, 1.4 mil paper, Cell Size 3.2 mil, Aerospace grade
	20 mm CNX48-4.0-(2)-A	Hexagonal Nomex, 2 mil paper, Cell Size 4 mil, Aerospace grade
	20 mm CNX64-3.2-(2)-A	Hexagonal Nomex, 2 mil paper, Cell Size 3.2 mil, Aerospace grade
	20 mm FC60	Generic properties for typical 60 kg/m <sup>3</sup> foam.
	20 mm M200	
	20 mm M80	
	25 mm CNX64-3.2-(3)-A	Hexagonal Nomex, 3 mil paper, Cell Size 3.2 mil, Aerospace grade
Plies	XC-300-E-PP	F: Generic 12K fibre Mod 230GPa, Strength >3.4 M: Generic Epoxy, based on XC-400-E-PP
	AF_150g	
	AF_200g	
	AF_250g	
	UC-HEC150-E-PP	F: HEC (Mod235GPa, Strength >4.8GPa) M: Generic epoxy
	UC-HEC200-E-PP	F: HEC (Mod235GPa, Strength >4.8GPa) M: Generic epoxy
	UC-HEC200-E-V	F: HEC (Mod235GPa, Strength >4.8GPa) M: Generic epoxy
	UC-HEC300-E-PP	F: HEC (Mod235GPa, Strength >4.8GPa) M: Generic epoxy
	UC-HEC300-E-V_1	F: HEC (Mod235GPa, Strength >4.8GPa) M: Generic epoxy
	UC-IMC150-E-PP	F: HEC (Mod235GPa, Strength >4.8GPa) M: Generic epoxy
	UC-IMC200-E-PP	F: HEC (Mod235GPa, Strength >4.8GPa) M: Generic epoxy
	WC-200-E-PP	F: Generic 3K fibre Mod 230GPa, Strength >3.4, M: Generic Epoxy
	WC-200-E-V	F: Generic 3K fibre Mod 230GPa, Strength >3.4, M: Generic Epoxy
	WC-400-E-PP	F: Generic 6K fibre Mod 230GPa, Strength >3.4 M: Generic Epoxy
	WC-400-E-V	F: Generic 6K fibre Mod 230GPa, Strength >3.4 M: Generic Epoxy
	WG-E300-E-PP	F: Generic WE, M: Generic Epoxy
	XC-300-E-V	F: Generic 12K fibre Mod 230GPa, Strength >3.4 M: Generic Epoxy
	XC-400-E-PP	F: Generic 12K fibre Mod 230GPa, Strength >3.4 M: Generic Epoxy
	XC-400-E-V	F: Generic 12K fibre Mod 230GPa, Strength >3.4 M: Generic Epoxy
	XC-HEC200-E-PP	PlyGen Material, Process:PrePreg Reinforcement:HEC mass:200 g/sqm FVF:0.49 FWF:0.59 Matrix:Epoxy PP Type:Biaxial in directionality 0.5/0.5
Formulated Products	Epoxy W	Epoxy Wet
	EpoxyAdhesive	This is generic Structural Epoxy adhesive

## 5. Appendix

### 5.1 BoM Settings

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#### Wastage factors

Property	Value	Unit
Wastage Scale Factor	1	
Finished Part Offcut	5	%
Cores Offcut	10	%
Secondary Bonding Adhesive Wastage	5	%

	Hand Layup Vacuum	Prepreg
Fabric Offcut [%]	7	5
Resin Application Wastage [%]	5	0

Included in Usage and Wastage Quantities accordingly.

#### Usage factors

Property	Value	Unit
Usage Scale Factor	1	
Secondary Bonding Adhesive Usage	3	%

	Hand Layup Vacuum	Prepreg
General Resin Usage [%]	7	0
Resin Bleed-Out [%]	0	1

Included in Usage and Wastage Quantities accordingly.

#### Overlap Factors (Wastage & Usage)

Overlap Factors (Percentage of ply total area)

	Hand Layup Vacuum	Prepreg
Woven Overlap [%]	4	2.5
Multiaxial Overlap [%]	4	2.5
UD Overlap [%]	2	1.75
Other Overlap [%]	0	0

Included in Usage and Wastage Quantities accordingly.

#### Core Resin Consumption Factors

Core Resin Consumption varies and depends on Core Preprocessing (i.e. Core Cut Type) and Laminate Processing Type (i.e. Infusion).

Defined according to CompoSIDE Internal Knowledge.

### 5.2 Tables Header Notes

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<sup>1</sup> Including Wastage & Usage Factors

<sup>2</sup> Including Usage Factors

<sup>3</sup> Laminates are compliant with the ISO 12215 Category A and ABS guidelines