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# LAMPIRAN



Daya Mesin 650 HP

Main Dimension

LOA 25.60 m  
 LWL 25.20 m  
 LBP 24.30 m  
 B 7.60 m  
 H 3.40 m  
 T 2.70 m

INTERNATIONAL PAINT INDONESIA (IPI)				
INTERNAL AREA			Area (m <sup>2</sup> )	1047
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	327	GTA220	33	
UNDERWATER AREA			Area (m <sup>2</sup> )	315
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	99	GTA220	10	
Epoxy Tie Coat	54	GTA220	6	
Tin Free Antifouling	59	GTA004	6	
TOP SIDE & EXTERNAL BULWARK AREA			Area (m <sup>2</sup> )	77
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Paint Type	25	GTA220	3	
Epoxy Tie Coat	14	GTA220	2	
Polyurethane Finish	9	GTA733	1	
MAIN DECK AREA			Area (m <sup>2</sup> )	117
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Primer/Finish	26	GTA220	3	
SUPPORT BEAM AREA			Area (m <sup>2</sup> )	73
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	17	GTA220	2	
Polyurethane Finish	10	GTA733	1	
Quantity of Paint Product				
Paint Type	Volume (lt)	Total Pails	Price	
Epoxy Anticorrosive	468	24	Rp 97,680,000	
	26	2	Rp 8,745,000	
	68	4	Rp 13,777,000	
	19	1	Rp 5,160,000	
	59	3	Rp 10,263,000	
Product				
	Percent (%)	Volume (lt)	Total Pails	Price
	10	6	1	Rp 1,560,000
	10	59	3	Rp 3,642,000
	7	2	1	Rp 1,292,000
142,119,000				

HEMPEL				
INTERNAL AREA			Area (m <sup>2</sup> )	1047
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	409	H/08450	41	
UNDERWATER AREA			Area (m <sup>2</sup> )	315
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	124	H/08450	13	
Epoxy Tie Coat	41	H/08450	5	
Tin Free Antifouling	82	H/08080	9	
TOP SIDE & EXTERNAL BULWARK AREA			Area (m <sup>2</sup> )	77
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Paint Type	23	H/08450	3	
Epoxy Primer/Finish	16	H/08450	2	
Polyurethane Finish	11	H/08080	2	
MAIN DECK AREA			Area (m <sup>2</sup> )	117
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Primer/Finish	31	H/08450	4	
SUPPORT BEAM AREA			Area (m <sup>2</sup> )	73
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	15	H/08450	2	
Polyurethane Finish	10	H/08080	1	
Quantity of Paint Product				
Paint Type	Volume (lt)	Total Pails	Price	
Epoxy Anticorrosive	556	28	Rp 46,446,000	
Epoxy Primer/Finish	62	4	Rp 6,635,000	
Epoxy Tie Coat	41	3	Rp 6,264,000	
Polyurethane Finish	21	2	Rp 7,442,000	
Tin Free Antifouling	82	5	Rp 18,225,000	
Quantity of Thinner Product				
Product	Percent (%)	Volume (lt)	Total Pails	Price
Hempel H/08080	10	12	1	Rp 1,520,000
Hempel H/08450	10	70	4	Rp 9,560,000
<b>Total Price</b>	<b>Rp</b>	<b>96,092,000</b>		



Optimization Software:  
[www.balesio.com](http://www.balesio.com)

Daya Mesin 800 HP

Main Dimension

LOA 26.20 m  
 LWL 25.50 m  
 LBP 24.50 m  
 B 8.10 m  
 H 3.70 m  
 T 2.80 m

INTERNATIONAL PAINT INDONESIA (IPI)				
INTERNAL AREA		Area (m <sup>2</sup> )		1139
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	355	GTA220	36	
UNDERWATER AREA		Area (m <sup>2</sup> )		337
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	106	GTA220	11	
Epoxy Tie Coat	58	GTA220	6	
Tin Free Antifouling	64	GTA004	7	
TOP SIDE & EXTERNAL BULWARK AREA		Area (m <sup>2</sup> )		88
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Paint Type	28	GTA220	3	
Epoxy Tie Coat	16	GTA220	2	
Polyurethane Finish	11	GTA733	1	
MAIN DECK AREA		Area (m <sup>2</sup> )		127
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Primer/Finish	28	GTA220	3	
SUPPORT BEAM AREA		Area (m <sup>2</sup> )		74
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	17	GTA220	2	
Polyurethane Finish	11	GTA733	1	
Quantity of Paint Product				
Paint Type	Volume (lt)	Total Pails	Price	
Epoxy Anticorrosive	506	26	Rp 105,820,000	
	28	2	Rp 8,745,000	
	74	4	Rp 13,777,000	
	22	2	Rp 10,320,000	
	64	4	Rp 13,684,000	
Product				
	Percent (%)	Volume (lt)	Total Pails	Price
	10	7	1	Rp 1,560,000
	10	63	4	Rp 4,856,000
	7	2	1	Rp 1,292,000
160,054,000				



Optimization Software:  
[www.balesio.com](http://www.balesio.com)

HEMPEL				
INTERNAL AREA		Area (m <sup>2</sup> )		1139
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	445	H/08450	45	
UNDERWATER AREA		Area (m <sup>2</sup> )		337
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	132	H/08450	14	
Epoxy Tie Coat	44	H/08450	5	
Tin Free Antifouling	88	H/08080	9	
TOP SIDE & EXTERNAL BULWARK AREA		Area (m <sup>2</sup> )		88
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Paint Type	26	H/08450	3	
Epoxy Primer/Finish	18	H/08450	2	
Polyurethane Finish	12	H/08080	2	
MAIN DECK AREA		Area (m <sup>2</sup> )		127
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Primer/Finish	33	H/08450	4	
SUPPORT BEAM AREA		Area (m <sup>2</sup> )		74
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	15	H/08450	2	
Polyurethane Finish	10	H/08080	1	
Quantity of Paint Product				
Paint Type	Volume (lt)	Total Pails	Price	
Epoxy Anticorrosive	603	31	Rp 51,423,000	
Epoxy Primer/Finish	66	4	Rp 6,635,000	
Epoxy Tie Coat	44	3	Rp 6,264,000	
Polyurethane Finish	22	2	Rp 7,442,000	
Tin Free Antifouling	88	5	Rp 18,225,000	
Quantity of Thinner Product				
Product	Percent (%)	Volume (lt)	Total Pails	Price
Hempel H/08080	10	12	1	Rp 1,520,000
Hempel H/08450	10	75	4	Rp 9,560,000
<b>Total Price</b>	<b>Rp</b>	<b>101,069,000</b>		

Daya Mesin 950 HP

Main Dimension

LOA 26.80 m  
 LWL 25.80 m  
 LBP 24.80 m  
 B 8.50 m  
 H 4.00 m  
 T 2.90 m

**INTERNATIONAL PAINT INDONESIA (IPI)**

INTERNAL AREA			Area (m <sup>2</sup> )	1262
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	394	GTA220	40	

UNDERWATER AREA			Area (m <sup>2</sup> )	359
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	112	GTA220	12	
Epoxy Tie Coat	62	GTA220	7	
Tin Free Antifouling	68	GTA004	7	

TOP SIDE & EXTERNAL BULWARK AREA			Area (m <sup>2</sup> )	99
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Paint Type	31	GTA220	4	
Epoxy Tie Coat	17	GTA220	2	
Polyurethane Finish	12	GTA733	1	

MAIN DECK AREA			Area (m <sup>2</sup> )	137
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Primer/Finish	30	GTA220	3	

SUPPORT BEAM AREA			Area (m <sup>2</sup> )	76
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	17	GTA220	2	
Polyurethane Finish	11	GTA733	1	

Quantity of Paint Product

Paint Type	Volume (lt)	Total Pails	Price
Epoxy Anticorrosive	554	28	Rp 113,960,000
	30	2	Rp 8,745,000
	79	4	Rp 13,777,000
	23	2	Rp 10,320,000
	68	4	Rp 13,684,000

Product

Product	Percent (%)	Volume (lt)	Total Pails	Price
	10	7	1	Rp 1,560,000
	10	70	4	Rp 4,856,000
	7	2	1	Rp 1,292,000

168,194,000

**HEMPEL**

INTERNAL AREA			Area (m <sup>2</sup> )	1262
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	493	H/08450	50	

UNDERWATER AREA			Area (m <sup>2</sup> )	359
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	141	H/08450	15	
Epoxy Tie Coat	47	H/08450	5	
Tin Free Antifouling	94	H/08080	10	

TOP SIDE & EXTERNAL BULWARK AREA			Area (m <sup>2</sup> )	99
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Paint Type	29	H/08450	3	
Epoxy Primer/Finish	20	H/08450	2	
Polyurethane Finish	13	H/08080	2	

MAIN DECK AREA			Area (m <sup>2</sup> )	137
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Primer/Finish	36	H/08450	4	

SUPPORT BEAM AREA			Area (m <sup>2</sup> )	76
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	15	H/08450	2	
Polyurethane Finish	10	H/08080	1	

Quantity of Paint Product

Paint Type	Volume (lt)	Total Pails	Price
Epoxy Anticorrosive	663	34	Rp 56,399,000
Epoxy Primer/Finish	71	4	Rp 6,635,000
Epoxy Tie Coat	47	3	Rp 6,264,000
Polyurethane Finish	23	2	Rp 7,442,000
Tin Free Antifouling	94	5	Rp 18,225,000

Quantity of Thinner Product

Product	Percent (%)	Volume (lt)	Total Pails	Price
Hempel H/08080	10	13	1	Rp 1,520,000
Hempel H/08450	10	81	5	Rp 11,950,000

Total Price Rp 108,435,000



Optimization Software:  
[www.balesio.com](http://www.balesio.com)

Daya Mesin 1150 HP

Main Dimension

LOA 28.70 m  
 LWL 27.80 m  
 LBP 26.80 m  
 B 8.40 m  
 H 4.10 m  
 T 3.10 m

INTERNATIONAL PAINT INDONESIA (IPI)				
INTERNAL AREA			Area (m <sup>2</sup> )	1338
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	417	GTA220	42	
UNDERWATER AREA			Area (m <sup>2</sup> )	389
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	122	GTA220	13	
Epoxy Tie Coat	67	GTA220	7	
Tin Free Antifouling	73	GTA004	8	
TOP SIDE & EXTERNAL BULWARK AREA			Area (m <sup>2</sup> )	100
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Paint Type	32	GTA220	4	
Epoxy Tie Coat	18	GTA220	2	
Polyurethane Finish	12	GTA733	1	
MAIN DECK AREA			Area (m <sup>2</sup> )	144
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Primer/Finish	32	GTA220	4	
SUPPORT BEAM AREA			Area (m <sup>2</sup> )	81
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	19	GTA220	2	
Polyurethane Finish	12	GTA733	1	
Quantity of Paint Product				
Paint Type	Volume (lt)	Total Pails	Price	
Epoxy Anticorrosive	590	30	Rp 122,100,000	
	32	2	Rp 8,745,000	
	85	5	Rp 17,222,000	
	24	2	Rp 10,320,000	
	73	4	Rp 13,684,000	
product				
	Percent (%)	Volume (lt)	Total Pails	Price
	10	8	1	Rp 1,560,000
	10	74	4	Rp 4,856,000
	7	2	1	Rp 1,292,000
	179,779,000			



Optimization Software:  
[www.balesio.com](http://www.balesio.com)

HEMPEL				
INTERNAL AREA			Area (m <sup>2</sup> )	1338
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	523	H/08450	53	
UNDERWATER AREA			Area (m <sup>2</sup> )	389
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	153	H/08450	16	
Epoxy Tie Coat	51	H/08450	6	
Tin Free Antifouling	102	H/08080	11	
TOP SIDE & EXTERNAL BULWARK AREA			Area (m <sup>2</sup> )	100
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Paint Type	30	H/08450	3	
Epoxy Primer/Finish	20	H/08450	2	
Polyurethane Finish	13	H/08080	2	
MAIN DECK AREA			Area (m <sup>2</sup> )	144
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Primer/Finish	38	H/08450	4	
SUPPORT BEAM AREA			Area (m <sup>2</sup> )	81
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	16	H/08450	2	
Polyurethane Finish	11	H/08080	2	
Quantity of Paint Product				
Paint Type	Volume (lt)	Total Pails	Price	
Epoxy Anticorrosive	706	36	Rp 59,717,000	
Epoxy Primer/Finish	74	4	Rp 6,635,000	
Epoxy Tie Coat	51	3	Rp 6,264,000	
Polyurethane Finish	24	2	Rp 7,442,000	
Tin Free Antifouling	102	6	Rp 21,870,000	
Quantity of Thinner Product				
Product	Percent (%)	Volume (lt)	Total Pails	Price
Hempel H/08080	10	15	1	Rp 1,520,000
Hempel H/08450	10	86	5	Rp 11,950,000
<b>Total Price</b>	<b>Rp</b>	<b>115,398,000</b>		

Daya Mesin 1300 HP

Main Dimension

LOA 29.50 m  
LWL 28.70 m  
LBP 27.60 m  
B 8.70 m  
H 4.30 m  
T 3.40 m

**INTERNATIONAL PAINT INDONESIA (IPI)**

INTERNAL AREA			Area (m <sup>2</sup> )	1477
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	461	GTA220	47	

UNDERWATER AREA			Area (m <sup>2</sup> )	426
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	133	GTA220	14	
Epoxy Tie Coat	73	GTA220	8	
Tin Free Antifouling	80	GTA004	8	

TOP SIDE & EXTERNAL BULWARK AREA			Area (m <sup>2</sup> )	98
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Paint Type	31	GTA220	4	
Epoxy Tie Coat	17	GTA220	2	
Polyurethane Finish	12	GTA733	1	

MAIN DECK AREA			Area (m <sup>2</sup> )	154
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Primer/Finish	34	GTA220	4	

SUPPORT BEAM AREA			Area (m <sup>2</sup> )	84
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	19	GTA220	2	
Polyurethane Finish	12	GTA733	1	

Quantity of Paint Product

Paint Type	Volume (lt)	Total Pails	Price
Epoxy Anticorrosive	644	33	Rp 134,310,000
	34	2	Rp 8,745,000
	90	5	Rp 17,222,000
	24	2	Rp 10,320,000
	80	4	Rp 13,684,000

Product

Product	Percent (%)	Volume (lt)	Total Pails	Price
	10	8	1	Rp 1,560,000
	10	81	5	Rp 6,070,000
	7	2	1	Rp 1,292,000

193,203,000

**HEMPEL**

INTERNAL AREA			Area (m <sup>2</sup> )	1477
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	577	H/08450	58	

UNDERWATER AREA			Area (m <sup>2</sup> )	426
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	167	H/08450	17	
Epoxy Tie Coat	56	H/08450	6	
Tin Free Antifouling	111	H/08080	12	

TOP SIDE & EXTERNAL BULWARK AREA			Area (m <sup>2</sup> )	98
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Paint Type	29	H/08450	3	
Epoxy Primer/Finish	20	H/08450	2	
Polyurethane Finish	13	H/08080	2	

MAIN DECK AREA			Area (m <sup>2</sup> )	154
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Primer/Finish	41	H/08450	5	

SUPPORT BEAM AREA			Area (m <sup>2</sup> )	84
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	17	H/08450	2	
Polyurethane Finish	11	H/08080	2	

Quantity of Paint Product

Paint Type	Volume (lt)	Total Pails	Price
Epoxy Anticorrosive	773	39	Rp 64,693,000
Epoxy Primer/Finish	78	4	Rp 6,635,000
Epoxy Tie Coat	56	3	Rp 6,264,000
Polyurethane Finish	24	2	Rp 7,442,000
Tin Free Antifouling	111	6	Rp 21,870,000

Quantity of Thinner Product

Product	Percent (%)	Volume (lt)	Total Pails	Price
Hempel H/08080	10	16	1	Rp 1,520,000
Hempel H/08450	10	93	5	Rp 11,950,000

Total Price Rp 120,374,000



Optimization Software:  
[www.balesio.com](http://www.balesio.com)



Daya Mesin 1450 HP

Main Dimension

LOA 30.30 m  
 LWL 29.50 m  
 LBP 28.40 m  
 B 9.10 m  
 H 4.40 m  
 T 3.70 m

INTERNATIONAL PAINT INDONESIA (IPI)				
INTERNAL AREA			Area (m <sup>2</sup> )	1572
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	490	GTA220	49	
UNDERWATER AREA			Area (m <sup>2</sup> )	464
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	145	GTA220	15	
Epoxy Tie Coat	80	GTA220	8	
Tin Free Antifouling	87	GTA004	9	
TOP SIDE & EXTERNAL BULWARK AREA			Area (m <sup>2</sup> )	97
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Paint Type	31	GTA220	4	
Epoxy Tie Coat	17	GTA220	2	
Polyurethane Finish	12	GTA733	1	
MAIN DECK AREA			Area (m <sup>2</sup> )	165
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Primer/Finish	37	GTA220	4	
SUPPORT BEAM AREA			Area (m <sup>2</sup> )	86
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	20	GTA220	2	
Polyurethane Finish	12	GTA733	1	
Quantity of Paint Product				
Paint Type	Volume (lt)	Total Pails	Price	
Epoxy Anticorrosive	686	35	Rp 142,450,000	
	37	2	Rp 8,745,000	
	97	5	Rp 17,222,000	
	24	2	Rp 10,320,000	
	87	5	Rp 17,106,000	
Product				
Percent (%)	Volume (lt)	Total Pails	Price	
10	9	1	Rp 1,560,000	
10	84	5	Rp 6,070,000	
7	2	1	Rp 1,292,000	
204,765,000				



**Optimization Software:**  
[www.balesio.com](http://www.balesio.com)

HEMPEL				
INTERNAL AREA			Area (m <sup>2</sup> )	1572
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	614	H/08450	62	
UNDERWATER AREA			Area (m <sup>2</sup> )	464
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	182	H/08450	19	
Epoxy Tie Coat	61	H/08450	7	
Tin Free Antifouling	121	H/08080	13	
TOP SIDE & EXTERNAL BULWARK AREA			Area (m <sup>2</sup> )	97
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Paint Type	29	H/08450	3	
Epoxy Primer/Finish	19	H/08450	2	
Polyurethane Finish	13	H/08080	2	
MAIN DECK AREA			Area (m <sup>2</sup> )	165
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Primer/Finish	43	H/08450	5	
SUPPORT BEAM AREA			Area (m <sup>2</sup> )	86
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	17	H/08450	2	
Polyurethane Finish	12	H/08080	2	
Quantity of Paint Product				
Paint Type	Volume (lt)	Total Pails	Price	
Epoxy Anticorrosive	825	42	Rp 69,670,000	
Epoxy Primer/Finish	79	4	Rp 6,635,000	
Epoxy Tie Coat	61	4	Rp 8,352,000	
Polyurethane Finish	25	2	Rp 7,442,000	
Tin Free Antifouling	121	7	Rp 25,515,000	
Quantity of Thinner Product				
Product	Percent (%)	Volume (lt)	Total Pails	Price
Hempel H/08080	10	17	1	Rp 1,520,000
Hempel H/08450	10	100	5	Rp 11,950,000
<b>Total Price</b>	<b>Rp</b>	<b>131,084,000</b>		

Daya Mesin 1650 HP

Main Dimension

LOA 31.70 m  
 LWL 29.80 m  
 LBP 28.70 m  
 B 9.20 m  
 H 4.40 m  
 T 3.60 m

**INTERNATIONAL PAINT INDONESIA (IPI)**

INTERNAL AREA			Area (m <sup>2</sup> )	1624
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	506	GTA220		51

UNDERWATER AREA			Area (m <sup>2</sup> )	470
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	147	GTA220		15
Epoxy Tie Coat	81	GTA220		9
Tin Free Antifouling	88	GTA004		9

TOP SIDE & EXTERNAL BULWARK AREA			Area (m <sup>2</sup> )	47
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Paint Type	15	GTA220		2
Epoxy Tie Coat	9	GTA220		1
Polyurethane Finish	6	GTA733		1

MAIN DECK AREA			Area (m <sup>2</sup> )	175
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Primer/Finish	39	GTA220		4

SUPPORT BEAM AREA			Area (m <sup>2</sup> )	32
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	8	GTA220		1
Polyurethane Finish	5	GTA733		1

Quantity of Paint Product

Paint Type	Volume (lt)	Total Pails	Price
Epoxy Anticorrosive	676	34	Rp 138,380,000
	39	2	Rp 8,745,000
	90	5	Rp 17,222,000
	11	1	Rp 5,160,000
	88	5	Rp 17,106,000

Product

Product	Percent (%)	Volume (lt)	Total Pails	Price
	10	9	1	Rp 1,560,000
	10	83	5	Rp 6,070,000
	7	2	1	Rp 1,292,000

195,535,000

**HEMPEL**

INTERNAL AREA			Area (m <sup>2</sup> )	1624
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	635	H/08450		64

UNDERWATER AREA			Area (m <sup>2</sup> )	470
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	184	H/08450		19
Epoxy Tie Coat	61	H/08450		7
Tin Free Antifouling	122	H/08080		13

TOP SIDE & EXTERNAL BULWARK AREA			Area (m <sup>2</sup> )	47
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Paint Type	14	H/08450		2
Epoxy Primer/Finish	10	H/08450		1
Polyurethane Finish	7	H/08080		1

MAIN DECK AREA			Area (m <sup>2</sup> )	175
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Primer/Finish	46	H/08450		5

SUPPORT BEAM AREA			Area (m <sup>2</sup> )	32
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	7	H/08450		1
Polyurethane Finish	5	H/08080		1

Quantity of Paint Product

Paint Type	Volume (lt)	Total Pails	Price
Epoxy Anticorrosive	833	42	Rp 69,670,000
Epoxy Primer/Finish	63	4	Rp 6,635,000
Epoxy Tie Coat	61	4	Rp 8,352,000
Polyurethane Finish	12	1	Rp 3,721,000
Tin Free Antifouling	122	7	Rp 25,515,000

Quantity of Thinner Product

Product	Percent (%)	Volume (lt)	Total Pails	Price
Hempel H/08080	10	15	1	Rp 1,520,000
Hempel H/08450	10	99	5	Rp 11,950,000

Total Price Rp 127,363,000



Optimization Software:  
[www.balesio.com](http://www.balesio.com)

Daya Mesin 1800 HP

Main Dimension

LOA 31.00 m  
 LWL 26.60 m  
 LBP 25.60 m  
 B 10.20 m  
 H 4.80 m  
 T 4.00 m

INTERNATIONAL PAINT INDONESIA (IPI)				
INTERNAL AREA			Area (m <sup>2</sup> )	1802
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	562	GTA220	57	
UNDERWATER AREA			Area (m <sup>2</sup> )	478
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	150	GTA220	15	
Epoxy Tie Coat	82	GTA220	9	
Tin Free Antifouling	90	GTA004	9	
TOP SIDE & EXTERNAL BULWARK AREA			Area (m <sup>2</sup> )	45
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Paint Type	15	GTA220	2	
Epoxy Tie Coat	8	GTA220	1	
Polyurethane Finish	6	GTA733	1	
MAIN DECK AREA			Area (m <sup>2</sup> )	189
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Primer/Finish	42	GTA220	5	
SUPPORT BEAM AREA			Area (m <sup>2</sup> )	29
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	7	GTA220	1	
Polyurethane Finish	4	GTA733	1	
Quantity of Paint Product				
Paint Type	Volume (lt)	Total Pails	Price	
Epoxy Anticorrosive	734	37	Rp 150,590,000	
	42	3	Rp 13,118,000	
	90	5	Rp 17,222,000	
	10	1	Rp 5,160,000	
	90	5	Rp 17,106,000	
product				
	Percent (%)	Volume (lt)	Total Pails	Price
	10	9	1	Rp 1,560,000
	10	90	5	Rp 6,070,000
	7	2	1	Rp 1,292,000
212,118,000				



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HEMPEL				
INTERNAL AREA			Area (m <sup>2</sup> )	1802
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	704	H/08450	71	
UNDERWATER AREA			Area (m <sup>2</sup> )	478
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	187	H/08450	19	
Epoxy Tie Coat	63	H/08450	7	
Tin Free Antifouling	125	H/08080	13	
TOP SIDE & EXTERNAL BULWARK AREA			Area (m <sup>2</sup> )	45
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Paint Type	14	H/08450	2	
Epoxy Primer/Finish	9	H/08450	1	
Polyurethane Finish	6	H/08080	1	
MAIN DECK AREA			Area (m <sup>2</sup> )	189
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Primer/Finish	50	H/08450	5	
SUPPORT BEAM AREA			Area (m <sup>2</sup> )	29
Paint Type	Volume (lt)	Thinner Type	Volume (lt)	
Epoxy Anticorrosive	6	H/08450	1	
Polyurethane Finish	4	H/08080	1	
Quantity of Paint Product				
Paint Type	Volume (lt)	Total Pails	Price	
Epoxy Anticorrosive	905	46	Rp 76,305,000	
Epoxy Primer/Finish	65	4	Rp 6,635,000	
Epoxy Tie Coat	63	4	Rp 8,352,000	
Polyurethane Finish	10	1	Rp 3,721,000	
Tin Free Antifouling	125	7	Rp 25,515,000	
Quantity of Thinner Product				
Product	Percent (%)	Volume (lt)	Total Pails	Price
Hempel H/08080	10	15	1	Rp 1,520,000
Hempel H/08450	10	106	6	Rp 14,340,000
Total Price Rp 136,388,000				

Daya Mesin 1950 HP

Main Dimension

LOA 30.30 m  
 LWL 23.40 m  
 LBP 22.50 m  
 B 11.10 m  
 H 5.10 m  
 T 4.40 m

**INTERNATIONAL PAINT INDONESIA (IPI)**

INTERNAL AREA		Area (m <sup>2</sup> )	1933
Paint Type	Volume (lt)	Thinner Type	Volume (lt)
Epoxy Anticorrosive	603	GTA220	61

UNDERWATER AREA		Area (m <sup>2</sup> )	479
Paint Type	Volume (lt)	Thinner Type	Volume (lt)
Epoxy Anticorrosive	150	GTA220	15
Epoxy Tie Coat	82	GTA220	9
Tin Free Antifouling	90	GTA004	9

TOP SIDE & EXTERNAL BULWARK AREA		Area (m <sup>2</sup> )	43
Paint Type	Volume (lt)	Thinner Type	Volume (lt)
Paint Type	14	GTA220	2
Epoxy Tie Coat	8	GTA220	1
Polyurethane Finish	5	GTA733	1

MAIN DECK AREA		Area (m <sup>2</sup> )	203
Paint Type	Volume (lt)	Thinner Type	Volume (lt)
Epoxy Primer/Finish	45	GTA220	5

SUPPORT BEAM AREA		Area (m <sup>2</sup> )	26
Paint Type	Volume (lt)	Thinner Type	Volume (lt)
Epoxy Anticorrosive	6	GTA220	1
Polyurethane Finish	4	GTA733	1

Quantity of Paint Product

Paint Type	Volume (lt)	Total Pails	Price
Epoxy Anticorrosive	773	39	Rp 158,730,000
	45	3	Rp 13,118,000
	90	5	Rp 17,222,000
	9	1	Rp 5,160,000
	90	5	Rp 17,106,000

Product

Product	Percent (%)	Volume (lt)	Total Pails	Price
	10	9	1	Rp 1,560,000
	10	94	5	Rp 6,070,000
	7	2	1	Rp 1,292,000

220,258,000

**HEMPEL**

INTERNAL AREA		Area (m <sup>2</sup> )	1933
Paint Type	Volume (lt)	Thinner Type	Volume (lt)
Epoxy Anticorrosive	756	H/08450	76

UNDERWATER AREA		Area (m <sup>2</sup> )	479
Paint Type	Volume (lt)	Thinner Type	Volume (lt)
Epoxy Anticorrosive	188	H/08450	19
Epoxy Tie Coat	63	H/08450	7
Tin Free Antifouling	125	H/08080	13

TOP SIDE & EXTERNAL BULWARK AREA		Area (m <sup>2</sup> )	43
Paint Type	Volume (lt)	Thinner Type	Volume (lt)
Paint Type	13	H/08450	2
Epoxy Primer/Finish	9	H/08450	1
Polyurethane Finish	6	H/08080	1

MAIN DECK AREA		Area (m <sup>2</sup> )	203
Paint Type	Volume (lt)	Thinner Type	Volume (lt)
Epoxy Primer/Finish	53	H/08450	6

SUPPORT BEAM AREA		Area (m <sup>2</sup> )	26
Paint Type	Volume (lt)	Thinner Type	Volume (lt)
Epoxy Anticorrosive	6	H/08450	1
Polyurethane Finish	4	H/08080	1

Quantity of Paint Product

Paint Type	Volume (lt)	Total Pails	Price
Epoxy Anticorrosive	957	48	Rp 79,622,000
Epoxy Primer/Finish	68	4	Rp 6,635,000
Epoxy Tie Coat	63	4	Rp 8,352,000
Polyurethane Finish	10	1	Rp 3,721,000
Tin Free Antifouling	125	7	Rp 25,515,000

Quantity of Thinner Product

Product	Percent (%)	Volume (lt)	Total Pails	Price
Hempel H/08080	10	15	1	Rp 1,520,000
Hempel H/08450	10	112	6	Rp 14,340,000

Total Price Rp 139,705,000



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