



Ministry
of Defence



DE&S Policy Secretariat – Ships

DESSEC-PolSecShipsandSubs@mod.uk

Defence Equipment & Support
Maple 0a #2043
MOD Abbey Wood
Bristol BS34 8JH

29-Sep-16

Our Reference: FOI2016-5138

Dear

Request for Information under the Freedom of Information Act (FOIA) 2000

Further to my letter of 1 September, I am now in a position to provide you with a substantive response to your Freedom of Information request, in which you asked for information about the supply of paint products used on-board the Royal Fleet Auxiliary (RFA) Fort Victoria. You refined your original request and asked for the following information:

By way of clarification, the claimant is seeking damages for rhinitis (damage to the nasal passage) and potentially for an exacerbation of asthma which the claimant alleges to have been caused by exposure to lead based paint containing hexavalent chromium. The claim is being brought against Rolls Royce, the claimant's employer who were contracted by Cammell Laird to undertake specialist mechanical overhaul work on the vessel whilst docked in Dubai in 2012. We can confirm that the MOD are not being pursued in this action.

The key information that we are looking for relates to the paint used on the Fort Victoria from the date of her commission to present and the details of the overhaul/maintenance contracts – specifically whether there have been any contracts for stripping existing paint work from the vessel and re-painting, including the specification/contract with Cammell Laird for the 2012 Dubai work.

We would be grateful for sight of the documents as listed in your email, in line with the narrowed issues as mentioned above. These documents include: the general arrangement plans for RFA Fort Victoria, the Risk Assessment document for painting RFA Fort Victoria, paint specification and maintenance painting records.

I would first of all like to apologise for the time taken to provide a full response to your request.

You are aware that we have treated your correspondence as a request for information under the Freedom of Information Act 2000 (FOIA). A search for the information has now been completed within the Ministry of Defence (MOD), and I can confirm that some of the information in scope of your request is held.

I have attached the following named documents in PDF format; the general arrangement plans for RFA Fort Victoria (two documents), a Risk Assessment document for painting RFA Fort Victoria (dated 20 June 2012), an extract from a general instruction document on Naval Engineering Standards (NES) that includes some maintenance details on RFA Fort Victoria (dated April 1990), and a Hempel maintenance painting instruction sheet (dated February 2012).

In addressing your request for the Work and General Instruction sheets, you will recall that it is this last category that accounts for the bulk of the information we hold, and it was their volume that caused the allowable cost limit to be exceeded with your initial request. I have therefore provided a representative sample of 30 documents that fall within this category. Because of the high number of individual sheets to be provided, I have printed them and will send them to you separately by post, which I hope you will find acceptable.

As you may be aware, the FOI Act requires the MOD to disclose information unless an exemption applies. Some of the information contained in the maintenance records falls entirely within the scope of the absolute exemption provided for in section 40 (Personal Information) of the FOIA. All information under this exemption has been redacted, in order to protect personal information as governed by the Data Protection Act 1998. As an absolute exemption, there is therefore no requirement to consider the public interest in making a decision to withhold the information.

If you are not satisfied with this response or you wish to complain about any aspect of the handling of your request, then you should contact me in the first instance. If informal resolution is not possible and you are still dissatisfied then you may apply for an independent internal review by contacting the Information Rights Compliance team, 2nd Floor, MOD Main Building, Whitehall, SW1A 2HB (e-mail CIO-FOI-IR@mod.uk). Please note that any request for an internal review must be made within 40 working days of the date on which the attempt to reach informal resolution has come to an end.

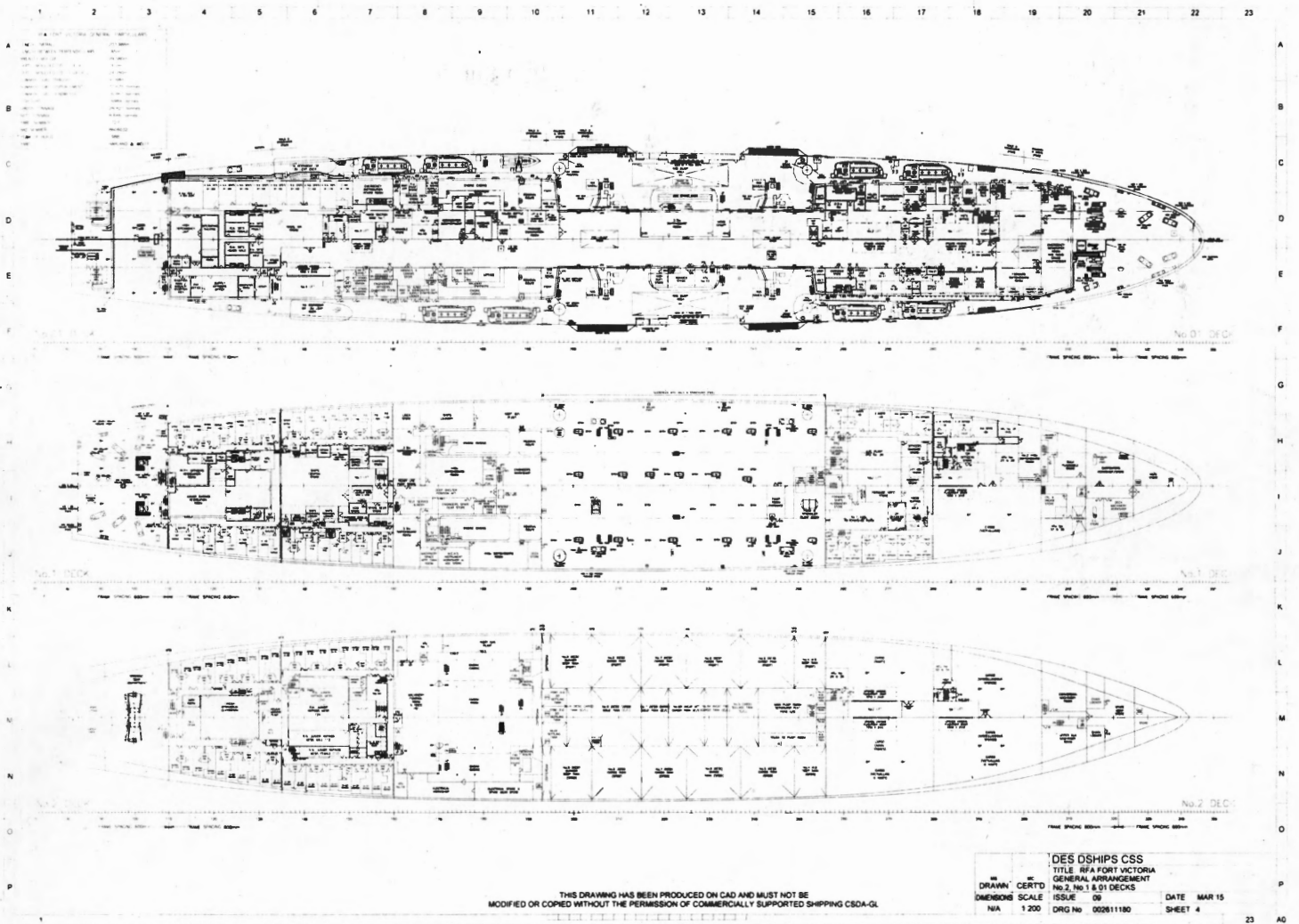
If you remain dissatisfied following an internal review, you may take your complaint to the Information Commissioner under the provisions of Section 50 of the Freedom of Information Act. Please note that the Information Commissioner will not investigate the case until the internal review process has been completed. Further details of the role and powers of the Information Commissioner can be found on the Commissioner's website,

<http://www.ico.gov.uk>

Yours sincerely

DE&S Policy Secretariat

AMEX A & P1
2016-5138



THIS DRAWING HAS BEEN PRODUCED ON CAD AND MUST NOT BE
MODIFIED OR COPIED WITHOUT THE PERMISSION OF COMMERCIALY SUPPORTED SHIPPING CS&A-GL

DES DSHIPS CSS			
TITLE RFA FORT VICTORIA			
GENERAL ARRANGEMENT			
DRAWN	CERTD	No. 2, No. 1 & 01 DECKS	
DIMENSIONS	SCALE	ISSUE	00
NA	1:200	DRG No.	002811180
		DATE	MAR 15
		SHEET	4



Ship Name	FORT VICTORIA		
Risk Assessment No:	442-1005-12		
Corresponding SOP:			
In Force:	20 Jun 2012	Review Date:	22 Feb 17

Task Controller		I/C of Task:	
XO		CPO(D)	
Task Description:	Painting internal or external		
Location of Task:	Throughout ship		
Personnel Involved:	All Deck Ratings		
Frequency of Task:	Variable depending on weather and operational tasking		
COSHH Assessment(s) Required:	Y	Unless application is by spray or in confined space	
NOISE Assessment Required:	Y	Areas where hearing protection is required is marked	
MH Assessment Required:	Y		
DSE Assessment(s) Required:			
Emergency Procedure Required:	N		
Overall Control Measures: (Including References)			
Assessor:	XO	Signature:	

Severity Guide		Probability / Likelihood Guide	
Major	Death, serious permanent disability or injury, return to work unlikely.	Probable	Not surprised, likely to occur.
Serious	More than 3 days off work.	Possible	Foreseeable chance of occurring.
Lost Time	Up to 3 days off work	Remote	Unlikely, though conceivable.
Minor	Injuries requiring First Aid treatment only.	Improbable	Very unlikely, probability of occurring close to zero.

RISK RATING

	Minor	Lost Time	Serious	Major
Probable	4	8	12	16
Possible	3	6	9	12
Remote	2	4	6	8
Improbable	1	2	3	4

9, 12 or 16	Improve controls immediately and consider stopping work.
6 or 8	Improve control measures.
3 or 4	Review control measures, take action if required.
1 or 2	Maintain control measures

HAZARD & EFFECTS	INHERENT RISK			People	Frequency	CONTROL MEASURES	RESIDUAL RISK			Recommendations
	Severity	Probability	Rating				Severity	Probability	Rating	
Fall from a height. Serious fall injuries including death.	Major	Probable	16	4	Monthly	<ol style="list-style-type: none"> Safety harness to be worn if outside handrails more than 2 metres above a fall route. Be aware of hanging harness syndrome. Secure staging to be erected if considered necessary by I/C. If a ladder is used it is to be properly footed. Permit to Work for Work Aloft to be completed to ensure no interference with other work processes. Do not over reach from a ladder. If using power tools aloft extra concentration will be required. Safety briefing by I/C task prior to work commencing. Painting not to be undertaken during inclement weather. Selection of personnel working aloft and their ability to physically conduct the task. 	Serious	Improbable	3	
Fall into water, drowning, Hypothermia.	Major	Probable	16	1	Variable, depending on programme	<ol style="list-style-type: none"> Prohibit painting over the side of the ship whilst underway. Paint cat to be used where possible in port. Paint cat not to be used in rough weather. If painting in busy port low cat required to warn of approaching traffic and/or wash. Paint cat to be inspected by competent person prior to use. If no paint cat available bosun's chair to be used, constructed by competent person and tended. Prohibit painting over the side when air temperature drops to 0 deg C. 	Serious	Improbable	3	
Fire	Major	Possible	12	All	Variable, depending on programme	<ol style="list-style-type: none"> When painting using solvent release cure paints ensure no heat sources are present. No grinding in the vicinity of paint application. Power tool leads to be checked before use and care taken not to damage on non skid coatings. 	Lost Time	Improbable	2	
Objects falling from above	Serious	Probable	12	All	Infrequently	<ol style="list-style-type: none"> Safety helmets to be worn whenever there is a risk of head injury. Deconflict work processes. Stop painting or stop work aloft. Check PTW system. Beware insecure items during inclement weather. Beware contracted personnel working aloft. 	Lost Time	Improbable	2	
Slips, trips and falls	Lost time	Probable	8	All	Constantly	<ol style="list-style-type: none"> Correct footwear to be worn. Spillages to be wiped up immediately. Consider reaction of thinners on non slip soles. Area to be kept clear of materials and tools not in use. Area to be well lit. Area familiarity. 	Minor	Remote	2	

HAZARD & EFFECTS	INHERENT RISK			People	Frequency	CONTROL MEASURES	RESIDUAL RISK			Recommendations
	Severity	Probability	Rating				Severity	Probability	Rating	
Sun effects Sun burn, sun stroke, heat exhaustion, hyperthermia	Lost time	Probable	8	All	Constantly in elevated temperatures	<ol style="list-style-type: none"> Hot weather briefing by I/C. Coveralls and head gear to be worn in strong sun. Rig shade in extreme conditions. Drink plenty of water. Others on task to keep good eye on work mates sun effects, especially those with pale skin. Drink at least 4.5 litres cool but not iced water daily. 	Lost time	Improbable	2	
OSHA toxic effects	Major	Possible	12	All	Constantly	<ol style="list-style-type: none"> Read product and safety data sheets prior to use. Only apply solvent release products in well ventilated spaces. Brush and roller to be the only method of application. Keep exposure time to a minimum. Use PPE, barrier cream, gloves, goggles, coveralls. Be aware of nearest eyewash station. Ensure a ventilated space. Permission to be granted prior to internal painting. 	Lost time	Improbable	2	



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:

Underwater Area

Surface preparation:

Remove oil and grease etc. with suitable detergent. Remove salt and other contaminants by (high pressure) fresh water cleaning. Clean damaged areas thoroughly by abrasive blasting or power tool cleaning (minor areas only). Feather edges to sound intact areas. Dust off residues. Touch-up to full film thickness.

Product name (including quality number)	Treated area		Shade no.	Film thickness (micron)		Theoretical spreading rate (sqm/ltr)	Application methods			Recommended	
	%	Shade		Wet	Dry		Brush	Roller	Spray	Nozzle orifice	Nozzle pressure
HEMPADUR 45143	100	Red	50630	200	125	4.8	(X)	(X)	X	.019"-.023"	250 bar
HEMPADUR 45143	100	Grey	11480	200	125	4.8	(X)	(X)	X	.019"-.023"	250 bar
HEMPADUR 45182	100	Yellowish grey	25150	175	75	6.1	(X)		X	.023"	200 bar
HEMPEL'S A/F GLOBIC NCT 8195M	100	Brown	62900	275	140	3.7	(X)		X	.027"-.031"	270 bar
HEMPEL'S A/F GLOBIC NCT 8195M	100	Red	58000	275	140	3.7	(X)		X	.027"-.031"	270 bar
100 touch up / 100 full coat / s/c stripe coat				Total d.f.t.		605	X Recommended (X) Possible				

Recoating intervals Ample ventilation Hrs=Hour(s) Mth=Month(s) N/R=Not Recommended

Quality no	D.F.T (micron)	Recoated with quality no	40°C		30°C		20°C		10°C		0°C		-10°C	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
45143	125	45143	N/R	N/R	4 Hrs	2 1/2 Day	5 Hrs	30 Day	10 Hrs	60 Day	22 Hrs	90 Day	43 Hrs	90 Day
45143	125	45182	N/R	N/R	4 Hrs	2 1/2 Day	5 Hrs	30 Day	10 Hrs	60 Day	22 Hrs	90 Day	43 Hrs	90 Day
45182	75	8195M	2 Hrs	60 Hrs	3 Hrs	3 1/2 Day	4 Hrs	5 Day	8 Hrs	10 Day	19 Hrs	22 1/2 Day	38 Hrs	45 Day
8195M	140	8195M	5 Hrs	None	7 Hrs	None	10 Hrs	None	19 Hrs	None	38 Hrs	None	3 Day	None
Drying time before taking into use, before un-docking			6 Hrs	None	9 Hrs	None	11 Hrs	None	23 Hrs	None	46 Hrs	None	4 Day	None

Remarks and Product information see next page

Hempel's PreSale System 2.6.17 (Build 754) User name: John de Caux
 Printed at: 25.02.2012 22:43 Department name: CSD Quality Code: 34-12 / 0212
 Created/Last modified: 25.02.2012 22:27 G8JDC1290L Page: 1 Environment: Immersion





Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:
Underwater Area

Product information:		Volume solids %	Curing agent	Mixing ratio volume	Pot life 20°C	Dry to touch 20°C	Flash point °C	Thinner	Application restrictions	
Shade no									Min. Temp °C	Max. RH%
HEMPADUR 45143	50630	60	97430	3 : 1	1 h	4 h	25	08450	-10	
HEMPADUR 45143	11480	60	97430	3 : 1	1 h	4 h	25	08450	-10	
HEMPADUR 45182	25150	46	98180	4 : 1	3 h	6 h	23	08450	-10	
HEMPEL'S A/F GLOBIC NCT 8195M	62900	52				4 h	27	08080		
HEMPEL'S A/F GLOBIC NCT 8195M	58000	52				4 h	27	08080		

The data, specifications, directions and recommendations (hereinafter "Information") given in this painting specification are based upon test results obtained under controlled or specifically defined conditions and said Information is correct to the best of our knowledge. The User must satisfy itself that it is appropriate to use the Product in accordance with the Information in the actual conditions under which the Product is intended to be used, and the Manufacturer and Seller do not guarantee the accuracy, completeness or appropriateness of the Information when the Product is used in those conditions. The provisions of Clause 8 of the GENERAL CONDITIONS OF SALE, DELIVERY AND SERVICE shall apply to any and all claims arising out of or in connection with the use of the Product as recommended above, overleaf or otherwise.

Hempel's PreSale System 2.6.17 (Build 754) User name: John de Caux Quality Code 34-12 / 0212
 Printed at: 25.02.2012 22:43 Department name: CSD Environment Immersion
 Created/Last modified: 25.02.2012 22:27 GBJDC1290L Page 2

HEMPEL



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:
Boottop

Surface preparation:

Remove oil and grease etc. with suitable detergent. Remove salt and other contaminants by (high pressure) fresh water cleaning. Clean damaged areas thoroughly by abrasive blasting or power tool cleaning (minor areas only). Feather edges to sound intact areas. Dust off residues. Touch-up to full film thickness.

Product name (including quality number)	Treated area %		Shade no.	Film thickness (micron)		Theoretical spreading rate (sqm/ltr)	Application methods			Recommended	
	%	Shade		Wet	Dry		Brush	Roller	Spray	Nozzle orifice	Nozzle pressure
HEMPADUR 45143	t/u	Red	50630	200	125	4.8	(X)	(X)	X	019"-023"	250 bar
HEMPADUR 45143	t/u	Grey	11480	200	125	4.8	(X)	(X)	X	019"-023"	250 bar
HEMPADUR 45182	t/u	Yellowish grey	25150	175	75	6.1	(X)		X	023"	200 bar
HEMPEL'S ANTIFOULING GLOBIC NCT 8190M	t/u	Black	19990	200	100	5.2	(X)		X	027"-031"	270 bar
HEMPEL'S ANTIFOULING GLOBIC NCT 8190M	t/u	Black	19990	200	100	5.2	(X)		X	027"-031"	270 bar
t/u: touch up f/c: full coat s/c: stripe coat Total d.f.t.				525					X Recommended (X) Possible		

Recoating intervals. Ample ventilation Hrs=Hour(s) Mth=Month(s) N/R=Not Recommended

Quality no	D.F.T. (micron)	Recoated with quality no	40°C		30°C		20°C		10°C		0°C		-10°C	
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
45143	125	45143	N/R	N/R	4 Hrs	22½ Day	5 Hrs	30 Day	10 Hrs	60 Day	22 Hrs	90 Day	43 Hrs	90 Day
45143	125	45182	N/R	N/R	4 Hrs	22½ Day	5 Hrs	30 Day	10 Hrs	60 Day	22 Hrs	90 Day	43 Hrs	90 Day
45182	75	8190M	2 Hrs	60 Hrs	3 Hrs	3½ Day	4 Hrs	5 Day	8 Hrs	10 Day	19 Hrs	22½ Day	38 Hrs	45 Day
8190M	100	8190M	3 Hrs	None	5 Hrs	None	6 Hrs	None	12 Hrs	None	24 Hrs	None	49 Hrs	None

Remarks and Product information see next page

Hempel's PreSale System 2.6.17 (Build 754) User name John de Caux Quality Code 34-12 / 0212
 Printed at 25.02.2012 22:43 Department name CSD Environment Immersion
 Created/last modified 25.02.2012 22:27 GBJDC1290L Page 3

HEMPEL



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:
Boottop

Product information:		Volume solids %	Curing agent	Mixing ratio volume	Pot life		Flash point °C	Thinner	Application restrictions	
Shade no.					20°C	20°C			Min. Temp °C	Max. RH%
HEMPADUR 45143	50630	60	97430	3 : 1	1 h	4 h	25	08450	-10	
HEMPADUR 45143	11480	60	97430	3 : 1	1 h	4 h	25	08450	-10	
HEMPADUR 45182	25150	46	98180	4 : 1	3 h	6 h	23	08450	-10	
HEMPEL'S ANTI-FOULING GLOBIC NCT 8190M	19990	52				4 h	27	08080		
HEMPEL'S ANTI-FOULING GLOBIC NCT 8190M	19990	52				4 h	27	08080		

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Hempel's PreSale System 2.6.17 (Build 754) User name John de Caux Quality Code 34-12 / 0212
Printed at: 25.02.2012 22:43 Department name CSD Environment Immersion
Created/Last modified: 25.02.2012 22:27 GBJDC1290L Page: 4

HEMPEL



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:
Topsides

Surface preparation:

Remove oil and grease etc. with suitable detergent. Remove salt and other contaminants by (high pressure) fresh water cleaning. Clean damaged areas thoroughly by abrasive blasting or power tool cleaning (minor areas only). Feather edges to sound intact areas. Dust off residues. Touch-up to full film thickness.

Product name (including quality number)	Treated area %		Shade	Shade no	Film thickness (micron)		Theoretical spreading rate (sqm/ltr)	Application methods			Recommended	
	t/u	f/c			Wet	Dry		Brush	Roller	Spray	Nozzle orifice	Nozzle pressure
HEMPADUR 45143	t/u		Red	50630	200	125	4.8	(X)	(X)	X	019"-023"	250 bar
HEMPADUR 45143	t/u		Grey	11480	200	125	4.8	(X)	(X)	X	019"-023"	250 bar
HEMPATHANE TOPCOAT 55210	f/c	100	Light Grey	BS676	100	50	10.2	(X)	(X)	X	017"-019"	150 bar
t/u: touch up f/c: full coat s/c: stripe coat Total d.f.t.					300			X: Recommended (X): Possible				

Recoating intervals Ample ventilation Hrs=Hour(s) Mth=Month(s) N/R=Not Recommended

Quality no	D.F.T. (micron)	Recoated with quality no	40°C		30°C		20°C		10°C		0°C		-10°C	
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
45143	125	45143	N/R	N/R	3 Hrs	None	4 Hrs	None	8 Hrs	None	18 Hrs	None	36 Hrs	None
45143	125	55210	N/R	N/R	3 Hrs	54 Hrs	4 Hrs	72 Hrs	8 Hrs	6 Day	18 Hrs	13½ Day	36 Hrs	27 Day

Remarks and Product information see next page

Hempel's PreSale System 2.6.17 (Build 754) User name: John de Caux
 Printed at: 25.02.2012 22:43 Department name: CSD Quality Code: 34-12 / 0212
 Created/Last modified: 25.02.2012 22:27 GBJJC1290L Page: 5 Environment: Severe

HEMPEL



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:
Topsides

Product information:	Shade no	Volume solids %	Curing agent	Mixing ratio volume	Pot life	Dry to touch	Flash point °C	Thinner	Application restrictions	
					20°C	20°C			Min. Temp. °C	Max. RH%
HEMPADUR 45143	50630	60	97430	3 : 1	1 h	4 h	25	08450	-10	
HEMPADUR 45143	11480	60	97430	3 : 1	1 h	4 h	25	08450	-10	
HEMPATHANE TOPCOAT 55210	BS676	51	95370	7 : 1	4 h	8 h	33	08080	-10	

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Hempel's PreSale System 2.6.17 (Build 754) User name: John de Caux Quality Code: 34-12 / 0212
 Printed at: 25.02.2012 22:43 Department name: CSD Environment: Severe
 Created/Last modified: 25.02.2012 22:27 GBJDC1290L Page: 5

HEMPEL



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:

Superstructure, External Bulkheads & Deckheads and Funnel

Surface preparation:

Remove oil and grease etc. with suitable detergent. Remove salt and other contaminants by (high pressure) fresh water cleaning. Clean damaged areas thoroughly by abrasive blasting or power tool cleaning (minor areas only). Feather edges to sound intact areas. Dust off residues. Touch-up to full film thickness.

Product name (including quality number)	Treated area		Shade no	Film thickness (micron)		Theoretical spreading rate (sqm/ltr)	Application methods			Recommended	
	%	Shade		Wet	Dry		Brush	Roller	Spray	Nozzle orifice	Nozzle pressure
HEMPADUR 45143	100	Red	50630	200	125	4.8	(X)	(X)	X	.019"-.023"	250 bar
HEMPADUR 45143	100	Grey	11480	200	125	4.8	(X)	(X)	X	.019"-.023"	250 bar
HEMPATHANE TOPCOAT 55210	100	Light Grey	BS676	100	50	10.2	(X)	(X)	X	.017"-.019"	150 bar
100 touch up 100 full coat 100 stripe coat Total d.f.t.				300					X: Recommended (X): Possible		

Recoating intervals. Ample ventilation Hrs=Hour(s) Mth=Month(s) N/R=Not Recommended

Quality no	D.F.T. (micron)	Recoated with quality no	40°C		30°C		20°C		10°C		0°C		-10°C	
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
45143	125	45143	N/R	N/R	3 Hrs	None	4 Hrs	None	8 Hrs	None	18 Hrs	None	36 Hrs	None
45143	125	55210	N/R	N/R	3 Hrs	54 Hrs	4 Hrs	72 Hrs	8 Hrs	6 Day	18 Hrs	13½ Day	36 Hrs	27 Day

Remarks and Product information see next page

Hempel's PreSale System 2.6.17 (Build 754) User name: John de Caux Quality Code: 34-12 / 0212
 Printed at: 25.02.2012 22:43 Department name: CSD Environment: Severe
 Created/Last modified: 25.02.2012 22:27 GBJDC1290L Page: 7

HEMPEL



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:

Superstructure, External Bulkheads & Deckheads and Funnel

Product information:		Volume solids %	Curing agent	Mixing ratio volume	Pot life		Flash point °C	Thinner	Application restrictions	
Shade no.					20°C	20°C			Min. Temp. °C	Max. RH%
HEMPADUR 45143	50630	60	97430	3 1	1 h	4 h	25	06450	-10	
HEMPADUR 45143	11480	60	97430	3 1	1 h	4 h	25	06450	-10	
HEMPATHANE TOPCOAT 55210	BS676	51	95370	7 1	4 h	8 h	33	06080	-10	

The data, specifications, directions and recommendations (hereinafter "Information") given in this painting specification are based upon test results obtained under controlled or specifically defined conditions and said Information is correct to the best of our knowledge. The User must satisfy itself that it is appropriate to use the Product in accordance with the Information in the actual conditions under which the Product is intended to be used, and the Manufacturer and Seller do not guarantee the accuracy, completeness or appropriateness of the Information when the Product is used in those conditions. The provisions of Clause 8 of the GENERAL CONDITIONS OF SALE, DELIVERY AND SERVICE shall apply to any and all claims arising out of or in connection with the use of the Product as recommended above, overleaf or otherwise.

Hempel's PreSale System 2.6.17 (Build 754) User name: John De Caux Quality Code 34-12 / 0212
Printed at: 25.02.2012 22:43 Department name: CSD Environment Severe
Created/Last modified: 25.02.2012 22:27 GBJDC1290L Page: 8

HEMPEL



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:

Masts & Cranes

Surface preparation:

Remove oil and grease etc. with suitable detergent. Remove salt and other contaminants by (high pressure) fresh water cleaning. Clean damaged areas thoroughly by abrasive blasting or power tool cleaning (minor areas only). Feather edges to sound intact areas. Dust off residues. Touch-up to full film thickness.

Product name (including quality number)	Treated area		Shade no.	Film thickness (micron)		Theoretical spreading rate (sqm/ltr)	Application methods			Recommended	
	%	Shade		Wet	Dry		Brush	Roller	Spray	Nozzle orifice	Nozzle pressure
HEMPADUR 45143	t/u	Red	50630	200	125	4.8	(X)	(X)	X	.019"- .023"	250 bar
HEMPADUR 45143	t/u	Grey	11480	200	125	4.8	(X)	(X)	X	.019"- .023"	250 bar
HEMPATHANE TOPCOAT 55210	f/c 100	Light Grey	BS676	100	50	10.2	(X)	(X)	X	.017"- .019"	150 bar
t/u touch up f/c full coat s/c stripe coat Total d.f.t.				300					X Recommended (X) Possible		

Recoating intervals Ample ventilation

Hrs=Hour(s)

Mth=Month(s)

N/R=Not Recommended

Quality no	D.F.T (micron)	Recoated with quality no	40°C		30°C		20°C		10°C		0°C		-10°C	
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
45143	125	45143	N/R	N/R	3 Hrs	None	4 Hrs	None	8 Hrs	None	18 Hrs	None	36 Hrs	None
45143	125	55210	N/R	N/R	3 Hrs	54 Hrs	4 Hrs	72 Hrs	8 Hrs	6 Day	18 Hrs	13½ Day	36 Hrs	27 Day

Remarks and Product information see next page

Hempel's PreSale System 2.6.17 (Build 754) User name: John de Caux Quality Code: 34-12 / 0212
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HEMPEL



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:
Masts & Cranes

Product information:	Shade no	Volume solids %	Curing agent	Mixing ratio volume	Pot life		Dry to touch		Flash point °C	Thinner	Application restrictions	
					20°C	20°C	20°C	20°C			Min. Temp. °C	Max. RH%
HEMPADUR 45143	50630	60	97430	3 : 1	1 h	4 h	25	08450	-10			
HEMPADUR 45143	11480	60	97430	3 : 1	1 h	4 h	25	08450	-10			
HEMPATHANE TOPCOAT 55210	BS676	51	95370	7 : 1	4 h	8 h	33	08080	-10			

The data, specifications, directions and recommendations (hereinafter "Information") given in this painting specification are based upon test results obtained under controlled or specifically defined conditions and said Information is correct to the best of our knowledge. The User must satisfy itself that it is appropriate to use the Product in accordance with the Information in the actual conditions under which the Product is intended to be used, and the Manufacturer and Seller do not guarantee the accuracy, completeness or appropriateness of the Information when the Product is used in those conditions. The provisions of Clause 8 of the GENERAL CONDITIONS OF SALE, DELIVERY AND SERVICE shall apply to any and all claims arising out of or in connection with the use of the Product as recommended above, overleaf or otherwise.

Hempel's PreSale System 2.6.17 (Build 754) User name John de Caux Quality Code 34-12 / 0212
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HEMPEL



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:

Weather Decks & Hangar Deck

Surface preparation:

Remove oil and grease etc. with suitable detergent. Remove salt and other contaminants by (high pressure) fresh water cleaning. Clean damaged areas throughly by abrasive blasting or power tool cleaning (minor areas only). Feather edges to sound intact areas. Dust off residues. Touch-up to full film thickness

Product name (including quality number)	Treated area		Shade no.	Film thickness (micron)		Theoretical spreading rate (sqm/ltr)	Application methods			Recommended	
	%	Shade		Wet	Dry		Brush	Roller	Spray	Nozzle orifice	Nozzle pressure
HEMPADUR 45143	t/u	Red	50630	200	125	4.8	(X)	(X)	X	.019"- .023"	250 bar
HEMPADUR 45143	t/u	Grey	11480	200	125	4.8	(X)	(X)	X	.019"- .023"	250 bar
HEMPEL'S NON SKID 45340	t/u	Grey	BS640	325	200	3.2	X	X	X	0.2	4 bar
HEMPEL'S NON SKID 45340	f/c 100	Grey	BS640	325	200	3.2	X	X	X	0.2	4 bar
t/u: touch up f/c: full coat s/c: stripe coat Total d.f.t.				650		X: Recommended (X): Possible					

Recoating intervals Ample ventilation Hrs=Hour(s) Mth=Month(s) N/R=Not Recommended

Quality no	D.F.T. (micron)	Recoated with quality no	40°C		30°C		20°C		10°C		0°C		-10°C	
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
45143	125	45143	N/R	N/R	3 Hrs	None	4 Hrs	None	8 Hrs	None	18 Hrs	None	36 Hrs	None
45143	125	45340	N/R	N/R	3 Hrs	None	4 Hrs	None	8 Hrs	None	18 Hrs	None	36 Hrs	None
45340	200	45340	N/R	N/R	3 Hrs	30 Day	4 Hrs	40 Day	8 Hrs	80 Day	18 Hrs	90 Day	35 Hrs	90 Day

Remarks and Product information see next page.

Hempel's PreSale System 2.6.17 (Build 754) User name: John de Caux Quality Code: 34-12 / 0212
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Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:

Weather Decks & Hangar Deck

Product information:	Shade no.	Volume solids %	Curing agent	Mixing ratio volume	Pot life		Flash point °C	Thinner	Application restrictions	
					20°C	20°C			Min. Temp. °C	Max. RH%
HEMPADUR 45143	50630	60	97430	3 : 1	1 h	4 h	25	08450	-10	
HEMPADUR 45143	11480	60	97430	3 : 1	1 h	4 h	25	08450	-10	
HEMPEL'S NON SKID 45340	BS640	63	95570	16 : 4	1 h	7 h	25	08450	-10	
HEMPEL'S NON SKID 45340	BS640	63	95570	16 : 4	1 h	7 h	25	08450	-10	

The data, specifications, directions and recommendations (hereinafter "Information") given in this painting specification are based upon test results obtained under controlled or specifically defined conditions and said Information is correct to the best of our knowledge. The User must satisfy itself that it is appropriate to use the Product in accordance with the Information in the actual conditions under which the Product is intended to be used, and the Manufacturer and Seller do not guarantee the accuracy, completeness or appropriateness of the Information when the Product is used in those conditions. The provisions of Clause 8 of the GENERAL CONDITIONS OF SALE, DELIVERY AND SERVICE shall apply to any and all claims arising out of or in connection with the use of the Product as recommended above, overleaf or otherwise.

Hempel's PreSale System 2.6.17 (Build 754) User name: John de Caux Quality Code 34-12 / 0212
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HEMPEL



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:

Flight Deck

Surface preparation:

Remove oil and grease etc. with suitable detergent. Remove salt and other contaminants by (high pressure) fresh water cleaning. Clean damaged areas thoroughly by abrasive blasting or power tool cleaning (minor areas only). Feather edges to sound intact areas. Dust off residues. Touch-up to full film thickness.

Product name (including quality number)	Treated area %	Shade	Shade no.	Film thickness (micron)		Theoretical spreading rate (sqm/ltr)	Application methods			Recommended	
				Wet	Dry		Brush	Roller	Spray	Nozzle orifice	Nozzle pressure
HEMPADUR 15570	t/u	Red	50630	175	100	5.5	(X)		X	.019"-.021"	175 bar
HEMPADUR MASTIC 45880	t/u	Reddish grey	12430	150	125	6.4	(X)	(X)	X	.017"-.023"	250 bar
HEMPEL'S NON SKID 457GB	t/u	Grey	BS640	275	200	3.8	(X)	(X)	(X)	0.21	5 bar
HEMPEL'S NON SKID 457GB	t/u	Grey	BS640	275	200	3.8	(X)	(X)	(X)	0.21	5 bar
t/u: touch up f/c: full coat s/c: stripe coat Total d.f.t.				625		X Recommended (X) Possible					

Recoating intervals: Ample ventilation Hrs=Hour(s) Mth=Month(s) N/R=Not Recommended

Quality no	D.F.T. (micron)	Recoated with quality no	40°C		30°C		20°C		10°C		0°C		-10°C	
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.		
15570	100	45880	N/R	N/R	3 Hrs	None	4 Hrs	None	8 Hrs	None	18 Hrs	None	N/R	N/R
45880	125	457GB	6 Hrs	None	8 Hrs	None	10 Hrs	None	30 Hrs	None	3½ Day	None	7 Day	None
457GB	200	457GB	N/R	N/R	95 Min	None	2 Hrs	None	4 Hrs	None	9 Hrs	None	18 Hrs	None

Remarks and Product information see next page

Hempel's PreSale System 2.6.17 (Build 754) User name: John de Caux Quality Code: 34-12 / 0212
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HEMPEL



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:
Flight Deck

Product information:		Volume solids %	Curing agent	Mixing ratio volume	Pot life	Dry to touch		Flash point °C	Thinner	Application restrictions	
Shade no						20°C	20°C			Min. Temp. °C	Max. RH%
HEMPADUR 15570	50630	55	95570	3 : 1	2 h	3 h	25	08450	-10		
HEMPADUR MASTIC 45880	12430	80	95880	3 : 1	1 h	4 h	39	08450	-5		
HEMPEL'S NON SKID 457GB	BS640	76	95570	4 : 1	2 h		25	08450			
HEMPEL'S NON SKID 457GB	BS640	76	95570	4 : 1	2 h		25	08450			

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Hempel's PreSale System: 2.6.17 (Build 754) User name: John de Caux Quality Code: 34-12 / 0212
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HEMPEL



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:

Internal Bulkheads & Deckheads

Surface preparation:

Remove oil and grease etc. with suitable detergent. Remove salt and other contaminants by (high pressure) fresh water cleaning. Clean damaged areas thoroughly by abrasive blasting or power tool cleaning (minor areas only). Feather edges to sound intact areas. Dust off residues. Touch-up to full film thickness.

Product name (including quality number)	Treated area		Shade no	Film thickness (micron)		Theoretical spreading rate (sqm/ltr)	Application methods			Recommended	
	%	Shade		Wet	Dry		Brush	Roller	Spray	Nozzle orifice	Nozzle pressure
HEMPALIN PRIMER HI-BUILD 13200	t/u	White	10000	150	75	6.3	(X)		X	.021"-.023"	200 bar
HEMUCRYL ENAMEL HI-BUILD 58030	f/c 100	White	10000	175	75	5.7	(X)		X	.015"-.019"	130 bar
	t/u touch up	f/c full coat	s/c stripe coat	Total d.f.t.							
					150				X Recommended	(X) Possible	

Recoating intervals: Ample ventilation: Hrs=Hour(s) Mth=Month(s) N/R=Not Recommended

Quality no	D.F.T. (micron)	Recoated with quality no	40°C		30°C		20°C		10°C		0°C		-10°C	
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
13200	75	58030	4 Hrs	None	6 Hrs	None	8 Hrs	None	16 Hrs	None	N/R	N/R	N/R	N/R

Remarks and Product information see next page.

Hempel's PreSale System 2.6.17 (Build 754) User name: John de Caux
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HEMPEL



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:

Internal Bulkheads & Deckheads

Product information:	Shade no.	Volume solids %	Curing agent	Mixing ratio volume	Pot life		Dry to touch		Flash point °C	Thinner	Application restrictions	
					20°C	20°C	4 h	1 h 30 min			Min. Temp °C	Max. RH%
HEMPALIN PRIMER HI-BUILD 13200	10000	47					4 h	38	08080	5		
HEMUCRYL ENAMEL HI-BUILD 58030	10000	43					1 h 30 min	93		5	80	

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Hempel's PreSale System 2 6 17 (Build 754) User name: John de Caux Quality Code: 34-12 / 0212
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HEMPEL



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:

Internal Decks

Surface preparation:

Product name (including quality number)	Treated area %		Shade	Shade no.	Film thickness (micron)		Theoretical spreading rate (sqm/ltr)	Application methods			Recommended	
	t/u	f/c			Wet	Dry		Brush	Roller	Spray	Nozzle orifice	Nozzle pressure
HEMPADUR 45143	t/u	100	Red	50630	200	125	4.8	(X)	(X)	X	.019"-.023"	250 bar
HEMPADUR 45143	f/c		Green	40640	200	125	4.8	(X)	(X)	X	.019"-.023"	250 bar
t/u touch up f/c full coat s/c stripe coat Total d.f.t.					250		X Recommended (X) Possible					

Recoating intervals Ample ventilation Hrs=Hour(s) Mth=Month(s) N/R=Not Recommended

Quality no	D.F.T. (micron)	Recoated with quality no	40°C		30°C		20°C		10°C		0°C		-10°C	
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.		
45143	125	45143	N/R	N/R										

Remarks and Product information see next page

Hempel's PreSale System 2.6.17 (Build 754) User name: John de Caux Quality Code: 34-12 / 0212
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Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:

Internal Decks

Remarks:

Normal good painting practice must be followed throughout the entire painting procedure

Product information:	Shade no	Volume solids %	Curing agent	Mixing ratio volume	Pot life		Flash point °C	Thinner	Application restrictions	
					20°C	20°C			Min. Temp °C	Max. RH%
HEMPADUR 45143	50630	60	97430	3 : 1	1 h	4 h	25	08450	-10	
HEMPADUR 45143	40640	60	97430	3 : 1	1 h	4 h	25	08450	-10	

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HEMPEL



Specification sheet

Hempel (UK) Ltd

Project: RFA FORT VICTORIA - Maintenance Painting

Area:

Main Engine & Auxiliaries

Surface preparation:

Very careful degreasing, followed by fresh water hosing to remove all contamination.

Product name (including quality number)	Treated area %	Shade	Shade no.	Film thickness (micron)		Theoretical spreading rate (sqm/ltr)	Application methods			Recommended	
				Wet	Dry		Brush	Roller	Spray	Nozzle orifice	Nozzle pressure
HEMPEL'S UNI-PRIMER 13140	t/u	Red	51320	125	50	8.4	X	(X)	X	019"- 023"	150 bar
HEMPEL'S UNI-PRIMER 13140	t/u	Grey	12170	125	50	8.4	X	(X)	X	019"- 023"	150 bar
HEMPALIN ENAMEL 52140	f/c 100	Green	40730	75	30	15.3	(X)	(X)	X	018"	150 bar
t/u: touch up f/c: full coat s/c: stripe coat Total d.f.t.				130			X Recommended (X) Possible				

Recoating intervals		Ample ventilation		Hrs=Hour(s)		Mth=Month(s)		N/R=Not Recommended							
Quality no	D.F.T (micron)	Recoated with quality no	40°C		30°C		20°C		10°C		0°C		-10°C		
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
13140	50	13140	3 Hrs	None	5 Hrs	None	6 Hrs	None	12 Hrs	None	N/R	N/R	N/R	N/R	
13140	50	52140	1 Hrs	36 Hrs	90 Min	54 Hrs	2 Hrs	72 Hrs	4 Hrs	5½ Day	N/R	N/R	N/R	N/R	

Remarks and Product information see next page.

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Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:

Main Engine & Auxiliaries

Product information:	Shade no.	Volume solids %	Curing agent	Mixing ratio volume	Pot life 20°C	Dry to touch 20°C	Flash point °C	Thinner	Application restrictions	
									Min. Temp °C	Max. RH%
HEMPEL'S UNI-PRIMER 13140	51320	42				2 h	30	08080	5	
HEMPEL'S UNI-PRIMER 13140	12170	42				2 h	30	08080	5	
HEMPALIN ENAMEL 52140	40730	46				6 h	38	08230	5	

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Hempel's PreSale System 2.6.17 (Build 754) User name: John de Caux Quality Code 34-12 / 0212
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HEMPEL



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:

Engine Room Floorplates

Surface preparation:

Product name (including quality number)	Treated area		Shade no	Film thickness (micron)		Theoretical spreading rate (sqm/ltr)	Application methods			Recommended	
	%	Shade		Wet	Dry		Brush	Roller	Spray	Nozzle orifice	Nozzle pressure
HEMPADUR 45143	t/u	Alu grey	19870	225	125	4.6	(X)	(X)	X	0.19"-0.23"	250 bar
HEMPADUR 45143	f/c 100	Alu grey	19870	225	125	4.6	(X)	(X)	X	0.19"-0.23"	250 bar
t/u touch up f/c full coat s/c stripe coat Total d.f.t.				250			X: Recommended (X): Possible				

Recoating intervals Ample ventilation Hrs=Hour(s) Mth=Month(s) N/R=Not Recommended

Quality no	D.F.T. (micron)	Recoated with quality no	40°C		30°C		20°C		10°C		0°C		-10°C	
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
45143	125	45143	N/R	N/R	2 Hrs	None	3 Hrs	None	6 Hrs	None	14 Hrs	None	29 Hrs	None

Remarks and Product information see next page

Hempel's PreSale System 2.6.17 (Build 754) User name: John de Caux
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Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:

Engine Room Floorplates

Remarks:

Normal good painting practice must be followed throughout the entire painting procedure.

Product information:	Shade no.	Volume solids %	Curing agent	Mixing ratio volume	Pot life	Dry to touch	Flash point °C	Thinner	Application restrictions	
					20°C	20°C			Min. Temp °C	Max. RH%
HEMPADUR 45143	19870	58	97430	3 : 1	1 h	4 h	25	08450	-10	
HEMPADUR 45143	19870	58	97430	3 : 1	1 h	4 h	25	08450	-10	

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Hempel's PreSale System 2.6.17 (Build 754) User name John de Caux Quality Code 34-12 / 02:12
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HEMPEL



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:

Bilges

Surface preparation:

Remove oil and grease etc. with suitable detergent. Remove salt and other contaminants by (high pressure) fresh water cleaning. Clean damaged areas thoroughly by abrasive blasting or power tool cleaning (minor areas only). Feather edges to sound intact areas. Dust off residues. Touch-up to full film thickness.

Product name (including quality number)	Treated area %		Shade	Shade no.	Film thickness (micron)		Theoretical spreading rate (sqm/ltr)	Application methods			Recommended	
	t/u	f/c			100	Wet		Dry	Brush	Roller	Spray	Nozzle orifice
HEMPADUR 45143	t/u		Grey	11480	200	125	4.8	(X)	(X)	X	.019"-.023"	250 bar
HEMPADUR 45143		f/c	Red	50630	200	125	4.8	(X)	(X)	X	.019"-.023"	250 bar
t/u touch up f/c full coat s/c stripe coat Total d.f.t.					250			X Recommended (X) Possible				

Recoating intervals		Ample ventilation		Hrs=Hour(s)		Mth=Month(s)		N/R=Not Recommended						
Quality no.	D.F.T. (micron)	Recoated with quality no.	40°C		30°C		20°C		10°C		0°C		-10°C	
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
45143	125	45143	N/R	N/R	2 Hrs	None	3 Hrs	None	6 Hrs	None	14 Hrs	None	29 Hrs	None

Remarks and Product information see: next page

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Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:
Bilges

Product information:		Volume solids %	Curing agent	Mixing ratio volume	Pot life 20°C	Dry to touch 20°C	Flash point °C	Thinner	Application restrictions	
Shade no.									Min. Temp. °C	Max. RH%
HEMPADUR 45143	11480	60	97430	3 : 1	1 h	4 h	25	08450	-10	
HEMPADUR 45143	50630	60	97430	3 : 1	1 h	4 h	25	08450	-10	

The data, specifications, directions and recommendations (hereinafter "Information") given in this painting specification are based upon test results obtained under controlled or specifically defined conditions and said Information is correct to the best of our knowledge. The User must satisfy itself that it is appropriate to use the Product in accordance with the Information in the actual conditions under which the Product is intended to be used, and the Manufacturer and Seller do not guarantee the accuracy, completeness or appropriateness of the Information when the Product is used in those conditions. The provisions of Clause 8 of the GENERAL CONDITIONS OF SALE, DELIVERY AND SERVICE shall apply to any and all claims arising out of or in connection with the use of the Product as recommended above, overleaf or otherwise.

Hempel's PreSale System 2.6.17 (Build 754) User name: John de Caux Quality Code: 34-12 / 0212
 Printed at: 25.02.2012 22:43 Department name: CSD Environment: Medium
 Created/Last modified: 25.02.2012 22:27 GBJDC1290L Page: 24

HEMPEL



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:

Hot Surfaces

Surface preparation:

Very careful degreasing, followed by fresh water hosing to remove all contamination.

Product name (including quality number)	Treated area		Shade no.	Film thickness (micron)		Theoretical spreading rate (sqm/ltr)	Application methods			Recommended	
	%	Shade		Wet	Dry		Brush	Roller	Spray	Nozzle orifice	Nozzle pressure
HEMPEL'S SILVIUM 51570	t/u	Light alu	19000	75	25	15.2	(X)	X		.017"	100 bar
HEMPEL'S SILVIUM 51570	t/u	Light alu	19000	75	25	15.2	(X)	X		.017"	100 bar
t/u touch up f/c full coat s/c stripe coat Total d.f.t.				50			X Recommended (X) Possible				

Recoating intervals: Ample ventilation Hrs=Hour(s) Mth=Month(s) N/R=Not Recommended

Quality no	D.F.T. (micron)	Recoated with quality no	40°C		30°C		20°C		10°C		0°C		-10°C	
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
51570	25	51570	4 Hrs	None	6 Hrs	None	8 Hrs	None	16 Hrs	None	N/R	N/R	N/R	N/R

Remarks and Product information see next page

Hempel's PreSale System 2.6.17 (Build 754) User name: John de Caux
 Printed at: 25.02.2012 22:43 Department name: CSO Quality Code: 34-12 / 0212
 Created/Last modified: 25.02.2012 22:27 GBJDC1290L Page: 25 Environment: Mild

HEMPEL



Specification sheet

Hempel (UK) Ltd.

Project: RFA FORT VICTORIA - Maintenance Painting

Area:
Hot Surfaces

Product information:	Shade no.	Volume solids %	Curing agent	Mixing ratio volume	Pot life	Dry to touch	Flash point	Thinner	Application restrictions	
					20°C	20°C	°C		Min. Temp. °C	Max. RH%
HEMPEL'S SILVIUM 51570	19000	38				5 h	38			
HEMPEL'S SILVIUM 51570	19000	38				5 h	38			

The data, specifications, directions and recommendations (hereinafter "Information") given in this painting specification are based upon test results obtained under controlled or specifically defined conditions and said Information is correct to the best of our knowledge. The User must satisfy itself that it is appropriate to use the Product in accordance with the Information in the actual conditions under which the Product is intended to be used, and the Manufacturer and Seller do not guarantee the accuracy, completeness or appropriateness of the Information when the Product is used in those conditions. The provisions of Clause 8 of the GENERAL CONDITIONS OF SALE, DELIVERY AND SERVICE shall apply to any and all claims arising out of or in connection with the use of the Product as recommended above, overleaf or otherwise.

Hempel's PreSale System 2.6.17 (Build 75a) User name: John de Caux Quality Code: 34-12 / 02-12
Printed at: 25.02.2012 22:43 Department name: CSD Environment: Mild
Created/Last modified: 25.02.2012 22:27 GBJDC1290L Page: 26

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 Completion date 24 Aug 93

- 2.17.4 To avoid unnecessary maintenance work, fittings, including ventilation trunks and pipework are not to be sited on Weatherdecks and weather bulkheads, if it is practicable to site them under cover in the Clearway, storerooms or similar spaces.
- 2.17.5 The number of lockers on the Weatherdeck is to be kept to a minimum. They are to be "built in" wherever possible.
- 2.17.6 Reels for stowage of light lines (boats' falls, grass lines etc) are to be fitted to bulkheads or structure off the deck.
- 2.17.7 Reels for stowage of heavy lines (mooring and towing wire-ropes etc) are to be fitted so that the outer turns of rope on the reel are at least 225mm clear of the deck.
- 2.17.8 Loose sleeves are to be fitted on handles of reels for ease of handling.

2.18 PRESERVATION & PAINTING

- 2.18.1 A Class Hull Preservation Scheme is to be prepared. NES 766 is to be used for guidance.
- 2.18.2 Preservation processes and painting treatments for the ship, externally and internally, are to be in accordance with the Class Hull Preservation Scheme.
- 2.18.3 For the underwater areas of the hull a self-polishing copolymer anti-fouling paint system, approved by MOD, is to be applied by airless spray. A maximum hull roughness of 120 microns is required. The undercoat is to be a coal tar epoxy paint to DGS 5961 (see NES 760) and not an oleo-resinous anti-corrosive paint system, which is unsuitable for use with impressed current cathodic protection.
- 2.18.4 Preservation, preparation and painting treatments are to be to Full Naval Paint Specification, except for draught marks and machinery items which are to be in accordance with best Commercial practice. Where it is shown that RN paint specifications are not acceptable to either the DTp or Lloyds Register of Shipping, then Alternative Commercial Paint Specifications may be submitted to the MOD for approval. The following Naval Engineering Standards are to be applicable.

NES 507	Requirements for Materials and Finishes for Electrotechnical Equipment.
NES 726	Cleanliness of Ships During Build.
NES 753	Weatherdecks Preparation and Painting.
NES 754	Requirements for Preservation and Coating of Flight Decks.
NES 755	Abrasive Blast Cleaning of Steel.
NES 756	Application of Coal Tar Epoxy Paint.
NES 757	Application and Uses of Prefabrication (Shop) Primers.
NES 758	Weatherwork Preparation and Painting.
NES 759	Primer, Pretreatment, use of.

- NES 760 Outer Bottom, Steel Hulled Surface Ships, Preparation and Painting Procedure.
- NES 761 Preservation and Painting of Fuel and Hydraulic Oil Tanks.
- NES 762 Paint Removers, Brushing Type, use of.
- NES 763 Preservation and Painting of Compartments in Surface Ships.
- NES 764 Flame Metal Spraying and Hot Dip Galvanising of Ship Structure and Fittings.
- NES 765 Machinery Compartments, Preservation and Painting.
- NES 766 Preservation and Painting of Glass Hull Preservation General for Surface Ships.
- NES 767 Preservation and Painting, General Requirements, Surface Ships.
- NES 789 Requirements for the Application of Structure Fairing and Filling Materials.

2.18.5 Means of access is to be provided to all structure so that all parts can be properly preserved, painted and maintained eg lugs or eyeplates are to be fitted on structures such as RAS rigs, funnels, etc, to permit rigging of hanging staging and safety harnesses.

2.18.6 Permanent, welded, mild steel staging lugs are to be fitted in all cargo tanks.

2.18.7 Painting lugs are to be fitted to the shell plating in way of the ship's markings, port and starboard, and around the stern.

2.18.8 Lifebuoys intended for lifesaving purposes are PVC, Orange in colour, and are not to be painted other than with the ship's name and prefix in black.

Two lifebuoys for ceremonial purposes are to be painted white. The ship's name and two badges are to be painted and gilded on one side.

2.18.9 NOTE: The prefix RFA is to be painted on the Boats and Lifebuoys and in other locations where the name customarily appears in the ship but not on the outside of the hull.

2.18.10 For Galvanising and Metal-spraying see para 2.21.

2.18.11 For Cathodic protection see para 2.22.

2.18.12 For painting of decks see para 2.35.9.

2.19. DECOR

2.19.1 For all accommodation areas, including passageways, MOD personnel are to select the preferred colour scheme from the MOD Master Decor Scheme including, unless otherwise specified herein, the materials to be used for upholstery, curtains, covers, etc.

2.19.2 In the Galley, Serveries, Pantries etc, all surfaces of benches, cupboards, drawers, doors and equipments are to be finished in stainless steel. No surfaces are to be painted. Stands or feet of all equipments, which are stove enamelled,