

Defence Equipment & Support

WARPAINT

Issue 56

April 2025



Equipping and Supporting our Armed Forces

Contents

INTRODUCTION	3
AMENDMENTS TO ISSUE 56	3
WARPAINT APPROVAL PROCESS	5
DE&S WATERFRONT ENGINEERING TEAM	6
ROYAL NAVY (RN) HUSBANDRY ROLE	7
RN HUSBANDRY HABITABILITY DATABASE (RNHHD)	7
MARITIME ASSURANCE SUPPORT TOOL (MAST)	7
SHIPS RESPONSIBILITY FOR PAINT REPAIRS	8
QUALITY	8
SAFETY TOPICS (TO BE READ IN CONJUNCTION WITH BR 3939)	9
Needle Guns	9
Prohibited Coatings	9
Fire and Toxicity Standard and Classification	9
DESIGN	11
DESIGN TARGET LIFE OF COATINGS	11
THE 4 STAGES OF CORROSION	12
PAINTING AND PRESERVATION HOT TOPICS	12
PAINT INFORMATION CARDS (PIC)	13
ORDERING PAINTS FOR IN-SERVICE PLATFORMS	13
SAFE CUSTODY – SHIP STAFF	13
HOLDING PRIMERS	14
SUBMARINE BATTERY COMPARTMENT LINING REPAIR	14
RUST/STAIN REMOVERS	14
IN WATER HULL CLEANING	14
INTERNATIONAL ANTIFOULING SYSTEM CERTIFICATES (IAFS)	15
MAP 01-026 SURFACE SHIP HULL FOULING MANAGEMENT	15
HUSBANDRY - CURRENT WORK	16
VOLATILE ORGANIC COMPOUND (VOC) COMPLIANT COATING SYSTEMS	17
WHOLE SHIP SPECIFICATIONS	18
Annex Tables	18
SUBMARINE SPECIFICATION	19
REFERENCES	20
ANNEX A: SPECIALIST COATINGS AND PAINT REMOVERS	1
ANNEX B: WHOLE SHIP SPECIFICATION	1
ANNEX C: SUBMARINE SYSTEMS	1
ANNEX D: PRODUCT STOCK NUMBERS (NSNs) AND BR 1326 REFERENCES	1
ANNEX E: NAVAL SHIPS SUPPORT PAINT TABLE	1
ANNEX F: WARPAINT APPROVAL Form	1

TABLE OF TABLES	
Table 1. WARPAINT Areas that Require Fire and Toxicity Certification	10
Table 2. Def Stan 07-247 Categories	11
Table 3. Target Design Life of Coatings	12
Table 4. Stage of Corrosion	12
Table 5. Paint Information Cards BR 3939 Annex H	13
Table 6. VOC Levels	17
Table 7. BR1326 Issue 7 Hazard Categories	20
TABLE OF FIGURES	
Figure 1. WARPAINT Approval Process	
Figure 2. Corrosion Stages 0, 1 and 2	12
Figure 3. Corrosion Stages 3 and 4	12

Issue 56

The information on acceptable paint systems / coatings, given in this publication, updates WARPAINT Issue 55 – October 2024.

INTRODUCTION

- 1. WARPAINT is the main guidance document of acceptable paint coatings for all in-service and new-build Royal Naval (RN) Vessels. It is to be read in conjunction with Issue 5 of Books of Reference (BR) 3939 'Hull Preservation Processes'.
- 2. WARPAINT offers guidance on the various approved 'Commercial Off The Shelf' (COTS) protective coatings that have been assessed for their health and safety, fire characteristics and suitability, including additional certification where required, when applied to various areas of RN Vessels in accordance with BR 3939 Issue 5.
- 3. WARPAINT is currently released biannually in April & October. It is used to disseminate changes to Ministry of Defence (MoD) policy or guidance in between major updates of BR 3939 Issue 5 or any of the other paint related Defence Standards (DStan(s)).
- 4. Not all approved coatings are necessarily listed in WARPAINT as paint manufacturers are constantly striving to improve their current paint systems. Consequently, the Annexes are regularly updated. Should a coating therefore be proposed, which is not listed in the current issue of WARPAINT, confirmation of acceptance must be obtained from DESShips-ENG-TES-husbandry before it is used.
- 5. All paint coatings listed in the Annexes are to be applied strictly in accordance with their respective Product / Technical Data Sheets (PDS / TDS), Safety Data Sheets (SDS) and Application Instructions. This includes all aspects of the preparation stage and post application. PDS's define a process that must be followed in conjunction with the TDS and SDS. Full Quality Control (QC) data must be recorded to provide assurance and evidence that the specification has been satisfactorily achieved In Accordance With (IAW) BR 3939 Issue 5.
- 6. WARPAINT is only available electronically. It can be easily downloaded from the link below:
 - a. https://www.gov.uk/government/publications/warpaint

AMENDMENTS TO ISSUE 56

- 7. Front cover: HMS Prince of Wales during Replenish at Sea with Royal Norwegian Navy HNoMS Maud for the first time whilst on Exercise Strike Warrior. The UK Carrier Strike Group embarked on HMS Prince of Wales with the F-35B Lightning Fighter Jets for the first time.
- 8. Figure 1 has been updated to reflect changes made to the WARPAINT approval process. A new paragraph has been added stating Warpaint will be moving to a specification approval process and not single paints.
- 9. Notification of the removal of Royal Navy Husbandry and Habitability Database (RNHHD).

10. Prohibited coatings section updated to include materials being considered by the HSE and other authorities.

- 11. Rust Stain Removers section updated to include a minor trial of a new product during 2025.
- In water Hull Cleaning section updated to reflect new guidance through RN temporary Memorandums.
- 13. International Antifouling System Certificates section updated to include the new RN Temporary memorandum on the new S238 digital form.
- 14. Husbandry Current Work updated to include the work being carried out by the Husbandry team over the next 12 months. It includes the re-write of BR3939 and the proposed removal of Warpaint publication from public view. It also includes the development of a new Defence Standard for Original Equipment Manufacturer (OEM) equipment.
- 15. References updated to reflect latest versions.
- 16. Annex Updates:
 - a. ANNEX A: SPECIALIST COATINGS AND PAINT REMOVERS All North Atlantic Treaty Organization (NATO) Stock Numbers (NSNs) and DStan 07-247 categories have been reviewed to ensure they are still correct.
 - b. ANNEX B: WHOLE SHIP SPECIFICATION DStan 07-247 categories have been reviewed to ensure they are still correct. Product certification has now been reviewed to ensure they are still in date.
 - c. ANNEX C: SUBMARINE SYSTEMS DStan 07-247 categories and Submarine Toxicity Database (SMTD) reference have been reviewed to ensure they are still correct. Products with expired SMTD references have been removed and those removed in the previous issue of WARPAINT that have now been reassessed have been reintroduced. Product certification has now been reviewed to ensure they are still in date.
 - d. ANNEX D: PRODUCT STOCK NUMBERS (NSNs) AND BR 1326 REFERENCES has been updated to ensure that all products are able to order and products that are not present in Annexes A, B and C have been removed. All SMTD references and NSNs have been reviewed to ensure that they are still correct.
 - e. ANNEX E: NAVAL SHIPS SUPPORT PAINT TABLE removed

WARPAINT APPROVAL PROCESS

17. Paint coatings on all RN surface ships and submarines are to be WARPAINT compliant.

- 18. Figure 1 details the process for product inclusion in WARPAINT.
- 19. To raise a request contact <u>DESShips-ENG-TES-husbandry</u> who will provide a copy of the form found in ANNEX F. Requests are to include the PDS/TDS, SDS and application instructions. All areas of the form are to be completed. Requests will not be processed without this information.

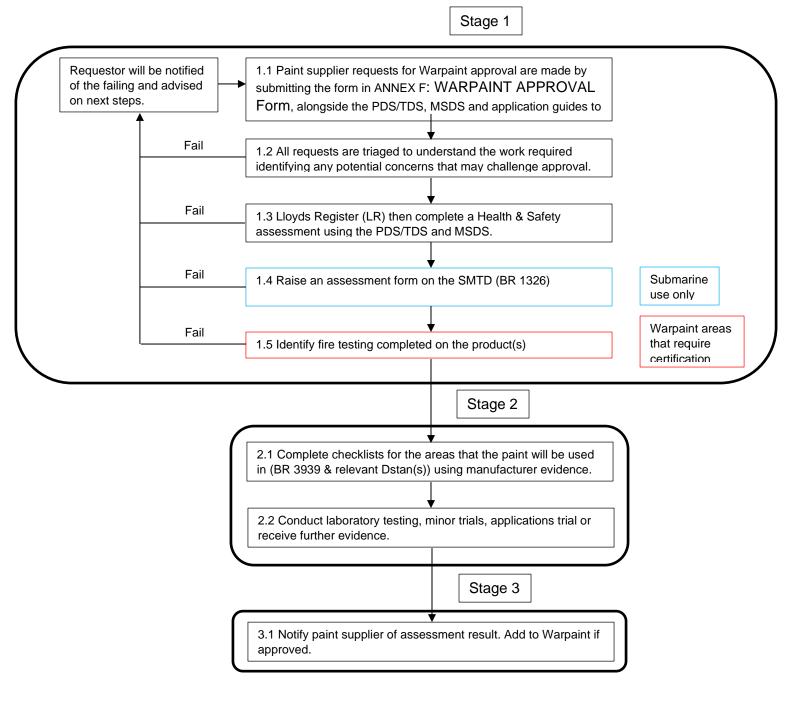


Figure 1. WARPAINT Approval Process

20. Manufacturers will be required to support DES Ships TES Husbandry in the completion of the relevant checklists to understand the performance against RN requirements for all areas that the product will be used in. The manufacturer shall supply in confidence all type approval certification and relevant test data relating to a paint IAW BR 3939 Issue 5. All information supplied will be retained whilst the product is approved to resolve future queries and support its use IAW DE&S retention policy.

- 21. If the data is not provided within 3 months from the initial request, then the product will not be approved for inclusion into WARPAINT.
- 22. Post review, a WARPAINT Approval Reference (WAR) Number will be allocated to each product and will be included in ANNEX D.
- 23. As part of the approval process the manufacturer shall be required to submit in confidence Identification Characteristics (IC) IAW BR 3939 Issue 5.
- 24. Manufacturers shall notify <u>DESShips-ENG-TES-husbandry</u> of any changes to the formulation or the withdrawal of the product as soon as it is known.
- 25. All paints shall be reassessed every 5 years to ensure they still meet WARPAINT requirements. This may be carried out sooner if there has been a change in legislation, change of requirement or the manufacturer notifies <u>DESShips-ENG-TES-husbandry</u> of a change to the formulation. Products will not be removed from WARPAINT during reassessment if support is provided from the appropriate manufacturer.
- 26. DES Ships-Eng-TES-Husbandry have the right to remove a product from WARPAINT if it no longer meets the requirements of BR 3939 Issue 5 or has not performed to the requirements of BR 3939 Issue 5 in service.
- 27. As of April 2026, WARPAINT will become **specification based and not individual products** and the WARPAINT approval process will be adjusted to reflect this change.

DE&S WATERFRONT ENGINEERING TEAM

- 28. The Waterfront Engineering Team's (WET) primary role is to provide oversight of platform material state in accordance with the process defined in BP145;
 - Working as part of the Ships Engineering, providing waterfront support across all platforms and engineering disciplines in line with the common support model and future maritime Support Contract (FMSP).
 - b. Defining and assure compliance to policy relating to Husbandry, Bio Security, Habitability and Flight deck safety.
 - c. Supporting collaborative working practices with key stakeholders in DE&S, industry, and our client (the Royal Navy).
 - d. Providing assurance that industry is fulfilling their contractual obligations.
 - e. Providing feedback on opportunities to improve processes, tasking priorities, defect rectification and material state reporting driving, where necessary, changes to policy and guidance information.

f. Producing material state reports/advice covering, flight deck, hull and structure, (husbandry), bio fouling, coating performance and habitability standards.

- g. Support aviation safety group with aviation inspections, including line out verification, flight deck safety checks, flight deck coatings assurance etc.
- h. Waterfront Subject Matter Experts (SMEs) supporting trials and inspection of new and existing coating including efficiencies and innovation initiatives.
- i. Investigate and report safety related defects.

29. WET Contact Details:

- a. Devonport Waterfront Engineering Team (DWET) <u>DESShips-Eng-TES-PWET@mod.gov.uk</u>
- b. Portsmouth Waterfront Engineering Team (PWET) <u>DESShips-Eng-TES-DWET@mod.gov.uk</u>
- 30. The Devonport and Portsmouth Engineering Teams will support platforms at their respective locations including Falmouth, Clyde & Rosyth, and all forward deployed platforms.

ROYAL NAVY (RN) HUSBANDRY ROLE

31. RN Ships Staff Ship are to contact NAVY-SURFLOT ENG WO1 HUSB for any support they require for Ships Husbandry.

RN HUSBANDRY HABITABILITY DATABASE (RNHHD)

32. RNHHD will be removed during FY25/26, and DES Ships-Eng-TES-Husbandry have taken action to secure the information stored in a separate database. This database is not accessible and all requests for the information stored in RNHHD will need to be requested through the DESShips-ENG-TES-husbandry multiuser.

MARITIME ASSURANCE SUPPORT TOOL (MAST)

- 33. MAST is a web-based software application. The application securely records the results of surveys conducted of platforms, the corrosion state of the surfaces within and work carried out to rectify or prevent corrosion issues. By centralising this data, a holistic view of the platform's material state can be maintained, performance of paints understood, and the impact of work undertaken or deprioritised can be reported on.
- 34. All survey documents and corresponding quality control records completed by prime contractors are to be sent to the relevant waterfront team as per para 30 using the correct multiuser email account para 29 so that the records can be input in to MAST.
- 35. The application has been migrated on to MODCloud at www.mast.r.mil.uk Royal Navy Ships husbandry Managers can request accounts to access to their ships data where it exists. Requests are to be sent to desships-eng-tes-mast@mod.gov.uk and MAST will be continually updated with new information and will be further developed over time.

SHIPS RESPONSIBILITY FOR PAINT REPAIRS

36. Ships Company are responsible for paint repairs of up to 1m², referring to BR 3939 Issue 5 for specialist information, and utilising Preservation Application & Work Instruction Forms (PAWIF). A robust Ship Husbandry management organisation is a necessity to enable the smooth running and planning of all Ship Husbandry activities. These responsibilities are Fleet wide, and across **ALL** classes of vessels.

Note: Platforms running with the Contract Logistics Support/Contracting for Availability (CLS / CfA) contracts are required to liaise with their respective Platform Managers for approval before any preservation work is carried out.

37. The mixing of different supplier's coatings in any given paint system is prohibited. If it becomes essential, then it will only be permitted with the written approval of the relevant MOD Platform Project Group.

QUALITY

- 38. Quality is an important aspect to painting and cannot be underestimated. It is paramount that robust processes are in place and adhered to. IAW BR 3939 Issue 5 Section 14 Quality Assurance & Quality Control (QC) outlines the requirement for a Preservation Quality Plan (PQP) and variable check points in the process as well as the qualification level of the paint inspectors. In addition, the requirements of Annex C of BR 3939 Issue 5 must also be noted.
- 39. PQPs are required ahead of all Fleet Time Support Periods (FTSP) and Upkeeps. Waterfront Engineering Teams and DES Ships TES Husbandry are to be consulted during the development of the PQP and are to be approved and signed by the Platform Authority.
- 40. Periodic checks should be carried out by the prime contractor to ensure that only qualified painters and blasters carry out work on RN vessels and that qualifications are in date IAW BR 3939 Issue 5 para 1408.
- 41. At the completion of any work undertaken on surface ships copies of the paint specification, QC records and Certificate of Conformity (CofC) IAW the PQP shall be forwarded to the relevant Waterfront Engineering Team as per paragraph 30 for inputting in to MAST.
- 42. New Submarine Design Authority Requirement (DAR) Deliverable. On completion of the maintenance period, all CofC produced IAW BR 3939 Issue 5 to be forwarded to SDA-IS-Struc3.
- 43. For submarine docking maintenance periods, an additional request to forward a "Declaration letter of anti-fouling system compliance with AFS/CONF/26 to SDA-IS-Struc3 and SDA-IS-EnvMgr is required.
- 44. For additional advice of the deliverables in para 42 & 43 contact SDA-IS-Struc3 in advance of delivery.

SAFETY TOPICS (TO BE READ IN CONJUNCTION WITH BR 3939)

Needle Guns

- 45. No ships should have needle guns onboard, and no RN personnel are to use needle guns.
- 46. The use of needle guns is prohibited and has been for many years now as far back as issue 23 September 2006. Needle guns although effective at removing paint tend to peen the surface which can lead to entrapment of corrosion and other contaminants which leads to the premature failure of coatings.
- 47. There is also the Health and Safety Executive (HSE) issue with regards to Hand Arm Vibration Syndrome (HAVS). Employers should check their obligations under the Control of Vibration at Work Regulations 2005. Details can be found on HSE website https://www.hse.gov.uk/vibration/hav/index.htm.
- 48. The surface preparation standard for cleanliness and profile must be met IAW BR 3939 Issue 5. The use of needle guns by shipyards and their contractor's should be kept to a minimum for the reasons stated in para 45 and 47. Alternative preparation tools should be used where possible.

Prohibited Coatings

- 49. The Institute of Naval Medicine (INM) have advised that the use of coatings containing, or based on the following, represent a significant health and safety risk:
 - Bitumen,
 - Chlorinated, brominated and fluorinated Rubbers,
 - Chromate based pigments,
 - Coal Tar,
 - Cybutryne IAW RESOLUTION MEPC.331(76),
 - Isocyanates,
 - Lead based pigments,
 - Tin.
- 50. Therefore, IAW BR 3939 Issue 5 Section 3 material requirements, coatings containing these substances are prohibited for use on RN Surface Ships and Submarines. This includes both the ship's structure and equipment installed on board ships and submarines.
- 51. Materials are constantly being assessed by the HSE and therefore the list of prohibited coatings will be updated to reflect these changes. Currently Medium-Chain Chlorinated Paraffins (MCCP), Persistent Organic Pollutants (POPs) and per-and Polyfluoroalkyl Substances (PFAS) are being reviewed by the HSE.

Fire and Toxicity Standard and Classification

52. Paint systems used in the WARPAINT areas shown in Table 1 shall meet the fire and toxicity requirements in DStan 07-247 'Selection of Materials on the Basis of their Fire Characteristics'.

Table 1. WARPAINT Areas that Require Fire and Toxicity Certification

Surface Ships (WSS)	Submarines (SS)	Annex A
G&H Above Water Hull and Superstructure Primer	S7 Internal Dry Spaces	A7 Peelable Corrosion- Inhibiting Encapsulated Membrane
J Above Water Hull and Superstructure Finish	S8 Internal Wet Spaces	A9 Flight Deck / Deck Markings
K Flight and Weather deck	\$12 Reactor Compartment	A12 Instruments & Electronic Equipment Panels
L&M Interior dry compartments	S13 Interior Decks	A13 Galvanised Steel & Zinc Metal Spray (Repair)
N&O Interior wet compartments	S14 Battery Compartments	A14 Woodwork (High gloss, Clear, Protective Finish)
P Interior Decks	S15 Machinery Bilges & Rafts	A17 Heat Resistant Coatings (Below 175°C)
Q Battery Compartments	S21 Holding Primers	A18 Heat Resistant Coatings (Above 200°C)
R Cable Lockers & Cofferdams	S22 Primers for Non- Ferrous Metals	A19 Heat Resistant Coatings (Above 400°C)
T Machinery Bilges		A26 Damp Surface Primer
Y Holding Primers		A27 Hanger Door Finish
Z Primers for Non-Ferrous Metals & FRP		A30 Powder Coatings (Internal)
		A31 Powder Coatings (External)

- 53. Fire & toxicity testing shall be carried out on a paint system and not the individual products. It is the responsibility of paint manufacturer to provide evidence that the testing requirements have been completed for all paint systems that fall into the areas shown in Table 1.
- 54. The types of tests required are shown below:
 - a. Fire propagation internal paint systems,
 - b. Resistance to surface spread of flame,
 - c. Smoke index of products of combustion,
 - d. Toxicity index of products of combustion.

The acceptable test standards can be found in DStan 07-247, which is available upon request.

- 55. The paint manufacturer shall provide all test data which will then be assessed by SDA NATG-Fire. Once assessed the paint system will be given a category, outlined in Table 2, and will be added to the Naval Authority System (NAS) materials database.
- 56. The six categories within DStan 07-247 are shown in Table 2. Paint systems shall only be used in WARPAINT if they meet category A1 or A2. Paint systems that are categorised as B may be used if there is no suitable alternative and the Platform Authority accept the risk and have mitigation in place that meets the NATG requirements.

Table 2. Def Stan 07-247 Categories

Category	Definition
A 1	Approved for use on both submarines and surface ships from a fire characteristics point of view only. This does not imply that the material is fit for purpose.
A2	Not fully satisfactory but approved for use in both submarines and surface ships from a fire characteristic point of view only. This does not imply that the material is fit for purpose.
В	Not fully satisfactory but may be accepted in the situation(s) given.
С	Not approved for use in Surface Ships or Submarines.
D	Those materials which are no longer available, no longer specified or have not been fully fire tested.
U	Uncategorised. This might be because not all the evidence to support a category have been compiled, it might be awaiting test results from the lab or detail is yet to be confirmed.
PA	Pending Assessment

57. Paint systems that are currently being reviewed by the NATG will remain as Pending Assessment until a conclusion is drawn. Category B paint systems will be greyed out and a compliant system from an alternative manufacturer should be used unless the Platform Authority has agreed to its use with justification and the appropriate concession paperwork completed.

DESIGN

- 58. During the design phase of a vessel either in build or in service it is essential that engineers are aware of the impact of corrosion and to use best practice when designing new structures and systems. A good guide for engineers is the Marine Paint Forums "Guidance information on design for preservation and corrosion control for steel hulled vessels". Membership of the Marine Paint Forum is made up of the Paint Suppliers, Paint Applicators, MOD, Consultants and UK Shipyards.
- 59. Where new ships are designed for forward deployment once in service it is essential that acquisition teams ensure paint systems used in build are appropriate for the environment that they will be operating in and are available worldwide. DESShips-ENG-TES-husbandry are to be consulted to support acquisition teams in developing paint schedules.
- 60. MOD Ship Acquisition and in-service platform teams should refer to the following documents in line with Knowledge in Defence (KiD) when specifying paint requirements:
 - a. Def Stan 21-005 Code of Practice for Protective Finishes
 - b. BR 3939 Issue 5
 - c. WARPAINT

DESIGN TARGET LIFE OF COATINGS

61. The expected design life of coatings applied to RN vessels, in accordance with the performance requirements of BR 3939 Issue 5 and International Standard Organization (ISO) 12944 'Paints and varnishes — Corrosion protection of steel structures by protective paint systems' the paint manufacturer's declaration, shall meet the design lives shown in Table 3:

Table 3. Target Design Life of Coatings

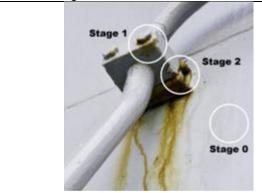
Description	Design Life
Holding Primer	6 Months
Hull Primer	20 Years
Anti-Fouling	5 Years
Anti-Fouling Foul Release	6 Years
Internal Primer	25 Years
Internal Finish	15 Years
External Finish	5 Years
Tank Coatings	15 Years
Bilges	25 Years

62. Where Bilges are not zinc metal sprayed, they shall meet the 25-year design life using alternative approved coatings IAW BR 3939 Issue 5.

THE 4 STAGES OF CORROSION

63. Table **4** below is to assist surveyors and ships staff to categorise the level of corrosion that has been identified through routine survey.

Table 4. Stage of Corrosion



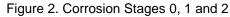




Figure 3. Corrosion Stages 3 and 4

LIC	rigure 2. Corrosion Stages 0, 1 and 2 Figure 3. Corrosion Stages 3 and 4			
Stage 0	No visible signs of corrosion. No indications of paint system defects. No visible sign of			
	oxidation products.			
Stage 1	General surface corrosion is visible. S	mall blisters or cracks in the paint coating. Red /		
	Orange rust staining becoming evider	t & deposits from water run-offs developing.		
Stage 2	Heavy corrosion is visible. Severe blister or cracking in the paint coating. Prominent			
	rust staining is now visible with medium to heavy deposits from water run-offs.			
Stage 3	Sever corrosion has resulted in visible metal loss at the point of attack to the point that			
	structural integrity may have been compromised. Very prominent rust staining is			
	visible, with heavy deposits from water run-offs.			
Stage 4	Complete perforation of the base metal has occurred, and structural integrity has been			
	lost			

PAINTING AND PRESERVATION HOT TOPICS

64. Relevant news stories, direct questions on approved coatings or paint systems and all matters regarding preparation standards, the NATO stock numbers and MOD(N) Paint Policy can be directed to DESShips-ENG-TES-husbandry.

PAINT INFORMATION CARDS (PIC)

65. Paint Information Cards (PIC) can be found in BR 3939 Issue 5 Annex H. There were 16 cards detailing how to carry out a painting tasks dependent on the area of the ship. These 16 have been condensed to 5, See Table 5 for areas covered by PICs. These information cards are not currently available however a Royal Navy Technical Memorandum (RNTM) will be issued when these cards have been updated.

Table 5. Paint Information Cards BR 3939 Annex H

PIC Card No.	PIC Card Description
1	Bilges
2	Internal Decks FRP
3	Internal Decks Steel
4	Weather Decks (FRP)
5	Weather Decks (Steel)

ORDERING PAINTS FOR IN-SERVICE PLATFORMS

- 66. The process for demanding paint products differs depending on the status of the unit. For Fleet Time units, the process will be managed by the Logistics Support Operations Centre (LSOC). This has replaced the older process commonly referred to as FLAGO's painting. Non-Fleet Time units are not to demand paint via the LSOC route. Paint products are to be provided and managed by the relevant contractor.
- 67. It is important to adequately plan for FTSP to ensure stock is delivered when required. Large demands required for FTSP shall be communicated to DES LSOC-LS-MS-SIM in advance to confirm availability, noting some specialist products may have production lead times more than 3 months. Where the timelines for provision of paint products exceed normal FTSP planning timelines they are to be treated as long lead items and ordered in advance of normal FTSP demands.

SAFE CUSTODY - SHIP STAFF

- 68. It is vital that paint products are correctly cared for. Demands are to be promptly embarked in to approved stowage's upon receipt. Environmental conditions can significantly reduce shelf life, therefore products where possible should not be exposed to temperatures above 25°C or below 15°C. Ships staff are encouraged to monitor the correct stowage of products used by contractors during FTSP which are to be held in approved climatically controlled jetty paint stowage's managed by the service provider. Products that have exceeded their shelf life are to be correctly disposed of adhering to relevant local instructions. Safe custody/storage considerations are to be considered when setting the Required Delivery Date for submitting long-lead item demands to ensure that the products are delivered as close to the point of use as possible.
- 69. Work is ongoing to create a class type allowances list; however, as an interim measure, units are to limit holdings to products specifically related to the repair of areas listed below.
 - a. External decks,
 - b. External superstructure,

- c. Dry Internal compartment decks, bulkheads and deck heads,
- d. Bilges,
- e. Damage control markings.

70. Specialist products such as anti-fouling or internal tank paints should not be routinely carried. Non deployed units should limit holdings to cover approximately three months of preservation tasks already formally captured in the ships E husbandry log.

HOLDING PRIMERS

- 71. Holding primers are used to protect the blast profile of prepared carbon steel from corrosion. They are a temporary coating that can be used as part of a paint system if they are maintained IAW the manufacturers guidance.
- 72. Where the surface of the holding primer has been left for extended periods of time and exposed to ultraviolet, damp, dirt and grease as well as wear and tear from the build or maintenance processes it will be necessary to inspect the surface to ensure it is in a suitable condition for overcoating.
- 73. The surface shall be cleaned, free from dirt and grease and any areas of damage shall be repaired. Holding primers shall be removed if they have been left for ≥ 9 months unless the paint manufacturer guarantees there will be no failure in the paint system over its lifetime.

SUBMARINE BATTERY COMPARTMENT LINING REPAIR

74. The battery compartment lining is to be repaired using only specialist rubber compounds stated in ANNEX A, please note that the Pang/Truflex "Super Solution" (A1344) must not be used while conducting rubber lining repairs as this item is prohibited for use on HM submarines. Repairs to battery lining should not be completed using a preservation coating, please contact SDA-IS-Struc3 for further information. Procurement of compounds should be sought well before maintenance period due to long lead times.

RUST/STAIN REMOVERS

- 75. Stain removers can influence the life expectancy of coatings and therefore are to be used sparingly and only once the initial corrosion issue has been rectified.
- 76. International Interplus 4101 & 4103 have been tested and are approved for removing rust stains. These products are special order and have a long lead time. Therefore, they need to be ordered ahead of time.
- 77. To improve interoperability with other NATO nations a minor trial will take place in 2025 to use a stain remover kit that was developed by NAVSEA. If successful, kits will be codified and distributed to all ships.

IN WATER HULL CLEANING

78. Due to the threat posed by contaminants from hull cleaning and the risk of introducing nonnative invasive species, it is necessary to restrict hull cleaning activities. It is recognised that a

fouled hull will have significant impact to the efficiency of the platform if it does not remain clean.

- 79. The need for hull cleaning has significantly reduced since the widespread use of Foul Release & Foul Defence coatings, but detrimental levels of fouling can build up particularly in warmer ambient conditions and following extended periods alongside. Full power runs in accordance with RNTM_04-018_23 'Procedure for shipboard monitoring of hull fouling', as a minimum, will often resolve the issue but occasionally fouling will become so severe that hull cleaning is the only solution.
- 80. Under water cleaning is to be identified IAW MAP 01-026 Hull cleans shall be approved by the Platform Authority and agreed with Navy Command Headquarters (NCHQ) in consultation with either the Kings Harbour Master (if in a UK naval base) or Salvage & Marine Operations (SALMO) (external to a UK naval base).
- 81. If a hull clean is required inside one of His Majesty's Naval Bases (HMNB), requests are to be sought IAW RNTM 06-020/24 In Water Hull Cleaning Requests in His Majesty's Naval Bases.
- 82. If a hull clean is required outside of HMNB, authorities must use the Underwater Engineering Services contract managed by SALMO for provision of accredited diving contractors who conduct hull cleaning and propeller polishing in accordance with the HSE Diving at Work Regulations 1997 and MOD Diving Policy.
- 83. For provision of Underwater Engineering Support or advice including underwater cleaning; the SALMO Underwater Engineering Desk can be contacted at E-mail: DESSAMO-UWE-OPS@MOD.UK Tel Mil: 9679 87363 Civ: 030 679 87363.

INTERNATIONAL ANTIFOULING SYSTEM CERTIFICATES (IAFS)

- 84. To comply with Defence Safety Authority (DSA) 02-DMR–Defence Maritime Regulations for Health, Safety and Environmental Protection regulation 616 Anti-fouling System; all platforms must carry an extant International Antifouling System Certificate (IAFS) as evidence of compliance with the International Convention on the Control of Harmful Anti-Fouling Systems on Ships, 2001.
- 85. Surveys and certification requirements for Anti-fouling Systems can be found in Annex 4 of International Convention on the Control of Harmful Anti-Fouling Systems on Ships, 2001.
- 86. Form S238 Surface Ship Docking, Slipping and Launch Report IAW RNTM 04-005/25 are to be completed when a platform is docked down. A copy of the completed form shall be forwarded to DESShips-ENG-TES-husbandry IAW BR 3939 Issue 5 and uploaded into MAST.

MAP 01-026 SURFACE SHIP HULL FOULING MANAGEMENT

87. MAP 01-026 Issue 3 June 2022 will be updated in the next 6 months to capture changes in the International Maritime Organisation (IMO) Resolution Marine Environment Protection Committee (MEPC) 378(80) 2023 'Guidelines for the control and management of ships biofouling' to minimize the transfer of invasive species and the introduction of RNTM_06-004/24 'Guidance on the Management of Biofouling on Royal Navy Surface Ships'.

HUSBANDRY - CURRENT WORK

88. BR 2203 and BR 3939 Issue 5 are currently undergoing a major update in 2025/26 with both documents being issued by April 2026. The updated documents will align with the work being undertaken in para 90.

- 89. Warpaint will also be undergoing a major update in 2025/26 to align with the new BR 3939 document. One option being considered is to remove Warpaint from public view. DES Ships-Eng-TES-Husbandry would welcome the views of the readers to understand what information they use from the current version.
- 90. As part of a wider project looking at improvements to availability of ships across the organisation, DES Ships-Eng-TES-Husbandry will be reviewing the whole ship philosophy with an emphasis on the longevity of coating systems which are easier to maintain through life. This task will include looking at maintenance regimes to enable more work to be done outside of upkeep docking periods. It is envisaged that this will lead to a reformatting of the WARPAINT document and a change in the requirements set out in BR 3939 Issue 5 as well as a change in the paint technologies currently used whilst maintaining safety first.
- 91. A new Defence Standard will be developed to capture the requirements for painting equipment. This new standard will allow OEMs to use paints that are acceptable for Royal Navy use. Currently OEMs are being asked to comply with BR3939 and Warpaint which has been developed for the ships structure and not equipment.
- 92. There are many paints currently being assessed for inclusion into WARPAINT as well as the reassessment of the current products. The back log is now being processed, and the support of paint manufacturers is greatly appreciated.
- 93. DStan 80-134 'Paint System, Anti-Slip for Ships Decking, Multi-Pack Type 1: Rough Texture (Flight Decks, Hangar Decks and Weather Decks) Type 2: Smooth Texture and Deck Markings' issue 6 has now been released and is available on StanMIS. The document has been re-written to include new requirements. Paint suppliers should check to see if their paint systems are still valid against the new requirements. The changes are to improve longevity of the coating systems to meet the design life criteria and reduce the maintenance and replacement of the coatings.
- 94. A laboratory assessment has been undertaken which replicates the harsh environment of diesel tanks compensated with sea water (area S16). This laboratory test cultivates Sulphate Reducing Bacteria (SRB) and exposes the paint coating to the corrosive effects caused by this type of microbial induced corrosion. The test intends to provide an insight into coating performance against SRB corrosion. The results are being reviewed by the SDA.
- 95. A NATO working group has been established for the review and update of Standardization Agreement (STANAG) 1278 'Standard for the Required Level and Measurement of Coefficient of Friction on Flight Decks' and Allied Naval Engineering Publications (ANEP) 88 'Standard for the Required Level and Measurement of Coefficient of Friction on Flight Decks' the DES Ships-Eng-TES-Husbandry ,on behalf of the UK, are the lead nation and will be the chair of the working group. The process will take 1-2 years to complete and support from industry will be required.

VOLATILE ORGANIC COMPOUND (VOC) COMPLIANT COATING SYSTEMS

96. European (EU) Legislation changed the way VOC emissions are recorded. Notwithstanding this, there remains a MOD requirement for low VOC materials. Based on the guidance table below, paint manufacturers and suppliers are reminded that any formulation changes to their existing products must be advised and reported to DESShips-ENG-TES-husbandry. Failure to do so will automatically result in the withdrawal of MOD(N) acceptance.

- 97. MOD(N) requires that paint manufacturers and suppliers quote VOC levels in accordance with local environmental regulations.
- 98. The MOD(N) maximum VOC target levels are shown in the Table 6 and both paint manufacturers and applicators are encouraged to propose/apply coatings that are equal to or below these target levels IAW BR 3939 Issue 5.

Table 6. VOC Levels

Category No.	Category	VOC limit – gms/litre, Paint less Water (See Note 1)
(i)	Blast/Weldable Primer*	600
(ii)	Tie-coats/sealers	550
(iii)	General primer/undercoat	200
(iv)	External Finishes	420
(v)	Internal Finishes	200
(vi)	Anti-Fouling**	400
(vii)	AFFF Tanks	390
(viii)	Demineralised Water Tanks	390
(ix)	AVCAT, Dieso & Hydraulic Oil Tanks	390
(x)	All other tank coating systems Inc. cofferdams, engine room	300
	bilges & chain lockers	
(xi)	Marine Varnish	530

Note 1. VOC calculations carried out in accordance with Def Stan 05-133 Part 1, Test 6.13.

*Blast or holding primers are typically applied to a specified thickness of 25 - 40 micrometres and are not considered to be weldable. Shop primers, or weldable primers, are applied by automatic spray, typically to a dft of 15 - 25 micrometres. It is recommended that the primer is removed before welding unless the user can demonstrate that the presence of the material does not affect weld integrity. This is particularly important where high strength steels, such as QN1, QN2, HY80 etc, with susceptibility to hydrogen cracking, are used. In all cases, the end user must establish whether the condition of supply of the coated steel substrate is suitable for their specific welding process conditions.

**The balance between VOC level and toxic content (should there be any) will be assessed. It may prove necessary to accept a higher VOC material if the lower toxic content outweighs the release of VOC.

99. **FOR THE BENEFIT OF NEW-BUILDING SPECIFICATIONS ONLY**, if a paint system can offer cost benefits, but one part of it has a VOC level higher than the MOD(N) target value, this part of the scheme could be proposed on the assumption that it will be subsequently submitted for approval and inclusion in WARPAINT. In this instance, data will be required supporting the case, including a statement that the total VOCs to be emitted during application, will be equal to or less than when applying a paint scheme fully in accordance with the MOD(N) target values.

WHOLE SHIP SPECIFICATIONS

100. It is essential for acquisition teams to choose more than one company for an entire class of RN vessels to engage more across all companies and put their differing products/technologies into service. New build paint specifications are no longer separately included as they so closely mirror upkeep, maintenance and repair.

- a. Submarine Systems (ANNEX C) do not use Whole Boat Specification allowing freedom to use the most durable product from a multitude of companies. However, this does not prevent a Whole Boat Specification being presented and accepted.
- b. The differing paint manufacturers 'Whole Ship Specification' are listed in alphabetical order and it is important to first determine your current paint supplier before ordering any specific coating.
- c. The paint specifications in ANNEX B and ANNEX C are the recommendations of the respective paint manufacturers. They are based on performance requirements, VOC and health and safety criteria of MOD(N). They are not specifications prescribed by MOD(N) and their fitness for purpose remains the responsibility of the paint manufacturer.
- 101. To ensure that vessels allocated under the 'Whole Ship Specification' concept receive paints from the selected supplier, their specific materials have been codified where necessary.

Annex Tables

- 102. Paint Products in the annex tables highlighted with a blue band do not fully meet MOD(N) criteria and are not to be used without prior confirmation from the relevant Platform Authority. Readers should always check their current approval status before use.
 103. Paint products in annex tables highlighted with a grey band as B within the NAS Material Database. Those products Pending Assessment will also be highlighted grey.
- 104. Annex table explanations:
 - a. These include Nominal Dry Film Thickness (NDFT) per coat in micrometres (μm), as well as both the minimum and maximum recoat intervals. The figures quoted are meant for guidance only. The manufacturers product data sheet should always be consulted.
 - b. The Wet Film Thickness (WFT) has been added alongside the Dry Film Thickness (DFT) for both ANNEX B and ANNEX C. The WFT is calculated with the following equation: WFT = [(DFT) / (Volume Solid %)] x 100. The Volume Solid percentage can be found in the TDS/PDS for that paint. In the same column there is both the NDFT and NWFT, the first value being the NDFT and the second value being the NWFT.
 - c. VOC grams per litre highlighted do not comply with MOD VOC emission target levels.
 - d. Items with 'TBC' appearing in the boxes, indicate that manufacturer/supplier information is awaited.
 - e. The paint manufacturers are listed in alphabetical order under each Ship and Submarine Area.
 - i. Acotec N.V
 - ii. Chugoku Paints (UK) Ltd

- iii. Hempel Paints Ltd
- iv. International Paint Ltd
- v. Jotun Paints (Europe) Ltd
- vi. Maker Coating Systems Ltd
- vii. Performance Polymer Group
- viii. PPG Protective & Marine Coatings
- ix. Sherwin Williams Protective & Marine Coatings
- f. NSNs for each manufacturer's products, where available, are listed in ANNEX D.
- g. In ANNEX C where a coating has the designation EXT in the BR 1326 'Air Purification in Submarines' column it means the coating has not been assessed and can only be used externally to the pressure hull.
- h. Breathable atmosphere (Axxxx) reference numbers are taken from the SMTD discussed in paragraph 111.
- 105. Landing Craft Utilities (LCUs) and Landing Craft Vehicle Personnel's (LCVPs)
 - a. In general, LCU's and LCVP's follow the 'Whole Ship Specifications' except for Above Water Hull coatings where Chemical Agent Resistant Coatings (CARC) and Infra-Red Resistant coatings (IRR) are specified. For advice, review of proposed Paint Specifications and queries in relation to these vessels contact <u>DESShips-ENG-TES-husbandry</u> or DESShipsWSpt-Amph-LC-TLM.
- 106. All information in the Annex tables was correct on the 30/04/2025

SUBMARINE SPECIFICATION

- 107. Acceptable paint specifications are outlined in ANNEX C, together with a list of other acceptable materials.
- 108. SDA-IS-Struc3 Tel. No. 030 015 51130, is the Structures & Coatings POC for In-Service Submarines.
- 109. SDA-DNA-HullOutf2 Tel. No. 030 016 18097, is the Structures & Coatings POC for Future Submarines.
- 110. SDA-P-ENG-WB-Con3 Tel. No. 0300 157 1688, is the Structures & Coatings POC for Astute Class.
- 111. BR 1326 classifications can be found in the SMTD located here http://www.tes-ssg-smtd.r.mil.uk SDA-TD-NATG-SM-ATM1 is the sponsor of the hazard assessment process in line with the requirements set for submarine atmosphere control This process is documented in BR 1326 Chapter 6. SDA-TD-NATG-SM-ATM1 has the responsibility for assessing materials for internal submarine use. Enquiries regarding material assessments should therefore in the first instance be directed to SDA-TD-NATG-SM-ATM1 at MOD Abbeywood South, Bristol, BS34 8JH. Tel. 030 015 14851.

Table 7. BR1326 Issue 7 Hazard Categories

Code	Hazard Category		
BLI	Build / Maintenance		
U	Hazards Unknown		
S	Superseded		
BCI / E / CF / CI	Controlled Item		
03 YR	3 Year Review Pending		
W	Withdrawn		
V	Prohibited		

- 112. Detailed information on the BR 1326 hazard categories can be found in chapter 6 annex B.
- 113. No painting is to be completed within the 10 days prior to closing the hatch and sailing to allow for products to dry and the atmosphere to be maintained as per BR 1326.
- 114. In-Service Submarines then must be contacted and provide a risk assessment to the whole boat, and Clearance for Use (CFU) of a product (This is for Vanguard, Trafalgar, and Astute classes). CFU is obtained through the nominated ISM Platform Safety Co-ordinator, SDA Tel (S4B). +44(0)300 168 5635.
- 115. Not all of the Astute class has been adopted by in service submarines so Clearance for Use can be sought from the Design Authority BAE systems.

Mr Steven Richardson

Engineer Manager – Materials Assurance

BAE Systems Submarines Phone: 01229 872657

Email: steven.richardson4@baesystems.com

116. "WHOLE SHIP SPECIFICATIONS" & "SUBMARINE SYSTEMS" Annexes do not cover Specialist areas. Specialist coatings & their location of use can be found in ANNEX A.

REFERENCES

BR 1326 Air Purification in Submarines

BR 2203 Ship Husbandry Manual (Withdrawn)

BR 3939 Hull Preservation Processes Issue 5

ISO 12944 Paints and varnishes — Corrosion protection of steel structures by protective paint systems

Def Stan 05-133 Methods for Testing Paints, Chemicals and Associated Products Part 1 Paints

Def Stan 07-247 Selection of materials on the basis of their fire characteristics

Def Stan 80-208 Paint, finishing, polyurethane, multi-pack, IRR, chemical agent resistant, non-aircraft use, low VOC. Withdrawn December 2018

Def Stan 80-122 Issue 4 Powder Coating, High Durability, Stoving

Def Stan 80-134 Issue 6 Paint System, Anti-Slip for Ships Decking, Multi-Pack Type 1: Rough Texture (Flight Decks, Hangar Decks and Weather Decks) Type 2: Smooth Texture and Deck Markings.

Def Stan 80-225 Paint system, low VOC, single or multi-pack.

DSA02 DMR Defence Maritime Regulations for Health, Safety and Environmental Protection

HSE Diving at Work Regulations 1997

International Convention on the Control of Harmful Anti-Fouling Systems on Ships 2001

IMO Resolution MEPC.331(76) Amendments to the International Convention on the Control of Harmful Anti-Fouling Systems on Ships 2001

IMO Resolution MEPC 378(80) 2023 Guidelines for the control and management of ships biofouling to minimize the transfer of invasive species

MOD Diving Policy

MAP 01-026 SURFACE SHIP HULL FOULING MANAGEMENT Issue 3

RNTM_04-018_23 Procedure for shipboard monitoring of hull fouling

RNTM 04-020/24 In Water Hull Cleaning Requests in His Majesty's Naval Bases.

RNTM 04-005/25 Surface Ship Docking, Slipping and Launch Report

STANAG 1278 and ANEP 88 'Standard for the Required Level and Measurement of Coefficient of Frication on Flight Decks'

ANNEX A: SPECIALIST COATINGS AND PAINT REMOVERS

- 1. Annex A covers the paint coatings that have been approved for use in specialist areas. The following information is included for each product:
 - a. The specialist system or material,
 - b. The generic paint type,
 - c. The VOC of the product,
 - d. The DStan 07-247 category if applicable and
 - e. The NATO Stock Number.
- Products highlighted in blue, represent products that do not fully meet the MoD requirements, in this instance <u>DESShips-ENG-TES-husbandry</u> should be contacted to ensure the product is suitable for the intended use.
- 3. DStan 07-247 references highlighted in grey represent products that are Pending Assessment (PA) and at current reaction to fire is unknown. Users should consider this when selecting the products.
- 4. For use on Submarines the user will need to ensure that the product has an in date SMTD reference which can been found in ANNEX D or by searching on the SMTD database¹.

¹ Home Page - SMTD (mil.uk) - SMTD Database

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number
A1 - ANTIFOULING FOR "ARCHER" CLASS & YACHTS				
Aquarius Marine Coatings Ltd				
CopperCoat	Anti-Fouling	0	N/A	See ANNEX D

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number
<u>A2 - RUDD</u>	ER, STABILISER	S & "A" FR	<u>AMES</u>	
Repair				
Belzona BELZONA 1311 Ceramic R-Metal (Fill and fair)	Ероху	0	N/A	99-598-6837

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number
A3 - RUDD	ER, STABILISER	S & "A" FR	AMES	
	Cavitation Prote	ection		
<u>Belzona</u>				
BELZONA 1341 Supermetalglide (Cavitation				
protection) (2 coats. 3 coats if blasting prior	Epoxy	5	N/A	99-322-3979
to application of anti-foul)				
Hempel Paints Ltd				
Hempadur Multi-strength GF 35870	Epoxy	200	N/A	See ANNEX D
Jotun Paints (Europe) Ltd				
Marathon IQ 2	Ероху	42	N/A	TBC
PPG Protective & Marine Coatings				
Sigmashield 1200	Ероху	143	N/A	TBC
Subasa Industrias	Glass Flake			
Subsea Industries	Reinforced	240	N/A	TBC
Ecoshield	Vinyl Ester			

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number
A4 - HULL (Under	water-Applied Coa	atings) GEN	ERAL REPA	<u>IR</u>
Alocit				
ALOCIT 28.15	Ероху	0	N/A	99-248-4702
Belzona				
BELZONA 5831	Ероху	0	N/A	8010-99-980-0440
Cactus Industrial				
KANSAI SURESEAL 1208UWE	Epoxy Mastic	25	N/A	8010-99-847-3498
International				
INTERZONE 101 Trowel Grade –	Ероху	0	N/A	99-915-9726
WARNING: Contains Silica				
Maker Coating Systems Ltd				
BIOFIX 561 LT Black – Kevlar reinforced	Ероху	0	N/A	99-133-9985

Specialist Systems/Materials	Generic Type	VOC g/l	DefStan 07-247	NATO Stock Number	
A5 - HULL – LINK COATS FOR FOUL RELEASE PAINT					
International Link Coat for INTERSLEEK 737: INTERSLEEK 7180	Silicone	377	N/A	See ANNEX D	

Specialist Systems/Materials	Generic Type	VOC g/l	DefStan 07-247	NATO Stock Number		
A6 - HPSW INTERNAL COATING FOR INTAKE PIPEWORK						
Belzona						
BELZONA 1341	Ероху	5	N/A	99-322-3979		
Maker Coating Systems Ltd	Glass Flake					
Corroless RF35	Ероху	93	N/A	8010-99-337-0778		

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number
A7 - PEELABLE CORROSION-INHIBITING ENCAPSULATING MEMBRANE				
A&E Group Enviropeel E170 (External/Weather deck applications only. Not for internal use.)	Thermoplastic	0	PA	8030-99-598-8967
Staingard PF (Temporary coating for DSRV seat during maintenance periods only. Not a permenant fit to the submarine)		0	PA	TBC

Specialist Systems/Materials	Generic Type	VOC g/l	DefStan 07-247	NATO Stock Number	
A8 - SEAWATER BALLAST TANK SPOT REPAIR					
Sherwin Williams Protective & Marine					
Coatings					
DuraPlate 301W	Ероху	100 g/l	N/A	See ANNEX D	

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number			
<u>A9 - FL</u>	A9 - FLIGHT DECK / DECK MARKINGS						
Chugoku Paints (UK) Ltd.							
Camideck Finish Type 1	Ероху	374	U	See ANNEX D			
Hempel Paints Ltd							
Hempels Non-Skid 45340	Ероху	347	U	See ANNEX D			
Hempadur 45143	Ероху	375	PA	See ANNEX D			
International							
INTERGARD 740	Ероху	420	PA	See ANNEX D			
Jotun Paints (Europe) Limited				See ANNEX D			
Hardtop CA	Acrylic	340	PA	See ANNEX D			
Hardtop Optima	Poly-Siloxane	215	PA	See ANNEX D			
PPG Protective & Marine Coatings							
Sigmacover 400	Ероху	106	PA	See ANNEX D			
Sigmadur 540	Epoxy Acrylic	411	PA	See ANNEX D			
Sherwin-Williams Protective & Marine							
<u>Coatings</u>							
Epidek M377	Ероху	330	PA	See ANNEX D			
Macropoxy M262	Ероху	354	PA	8010-99-133-8713			

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number	
A10 - LCU & LVCP - CARC & IRR A/W HULL FINISH					
Def Stan 80-208 has been replaced by Def Stan 80-225. Coatings to Def Stan 80-225 to be identified					
<u>Trimite</u>					
Trimite D00294			N/A	See ANNEX D	

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number	
A11 - NAVIGATION LIGHT ENCLOSURES Matte Black Finish					
Sherwin-Williams Protective & Marine					
Coatings	Alkyd Anti-				
Kem-Kromik 155	Corrosive	410	N/A	See ANNEX D	

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number	
A12 - INSTRUMENTS & ELECTRONIC EQUIPMENT PANELS					
Light Admiralty Grey BS381C 697					
Indestructible Paints					
IP3-6700 epoxy primer	Ероху	350	A1	See ANNEX D	
IP3-6971 epoxy finish	Ероху	420	Λ'	See ANNEX D	
<u>Trimite</u>					
Sp59 Primer	Stoved Epoxy	-	PA	8010-99-378-5631	
S59 Topcoat	Stoved Epoxy	-	В	8010-99-564-4008	

Specialist Systems/Materials	Generic Type	VOC g/l	DefStan 07-247	NATO Stock Number
A13 - GALVANISED	STEEL & ZINC N	ETAL SPRA	YER (REPA	NR)
Hempel Paints Ltd				
Hempels Zinc Primer 16490	Zinc Phenoxy	567	PA	TBC
International				
INTERZINC 22	Zinc Silicate	470	PA	99-927-5431
INTERZINC 72	Zinc Epoxy	410	PA	See ANNEX D
Maker Coating Systems Ltd				
Zinga	Polystyrene	539	PA	99-884-0220
PPG Protective & Marine Coatings				
Sigmazinc 19	Zinc Epoxy	584	PA	99-152-6131

Specialist Systems/Materials	Generic Type	VOC g/l	DefStan 07-247	NATO Stock Number
A14 - WOODWO	RK (High gloss,	Clear, Prote	ctive finish)	
Chugoku Paints (UK) Ltd				
Spar Varnish	Varnish	433	PA	8010-99-157-1808
Hempel Paints Ltd				
Hempels Marine Varnish 02220	Alkyd	430	U	99-224-5783
<u>International</u>				
Interlac 678	Alkyd	373	PA	99-328-9646
Jotun Paints (Europe) Limited	Urethane			
Spontan Varnish	Alkyd	470	PA	99-161-6220
PPG Protective & Marine Coatings				
Sigmarine 42	Phenolic	393	PA	See ANNEX D

Specialist Systems/Materials	Generic Type	VOC g/l	DefStan 07-247	NATO Stock Number	
A15 - CORROSION INHIBITOR GREASE					
Maker Coatings Systems Ltd					
CORROLESS CCI 355	HD Grease	N/A	N/A	9150-99-676-5736	

Specialist Systems/Materials	Generic Type	VOC g/l	DefStan 07-247	NATO Stock Number	
A16 - CONDUCTIVE GLANDS (QEC requirement)					
Parker Chomerics	Copper Epoxy				
Cho-shield 610	EMI	591	N/A	5999-01-703-3871	

Specialist Systems/Materials	Generic Type	VOC g/l	DefStan 07-247	NATO Stock Number	
A17 - HEAT RESISTANT COATINGS (Below 175°C)					
International (up to 250 °C)	Oleoresinous				
INTERTHERM 891	Aluminium	425	PA	See ANNEX D	
PPG Protective & Marine Coatings					
SIGMATHERM 500	Modified Alkyd	600	PA	See ANNEX D	

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number
A18 - HEAT RESISTANT COATINGS (Above 250°C)				
Hempel Paints Ltd				
Galvosil 15700	Zinc Silicate	435	PA	8010-99-593-8923
International	High Temp			
Intertherm 50	Silicone	495	A2	8010-99-969-0549
PPG Protective & Marine Coatings				
Sigmatherm 500	Modified Alkyd	600	PA	See ANNEX D

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number		
A19 - HEAT RESISTANT COATINGS (Above 400°C)						
International	High Temp					
Intertherm 50	Silicone	495	A2	8010-99-969-0549		
PPG Protective & Marine Coatings						
Sigmatherm 500	Modified Alkyd	600	PA	See ANNEX D		

Specialist Systems/Materials	Generic Type	VOC g/l	DefStan 07-247	NATO Stock Number	
A20 - SYSTEM FOR COATING NATURAL RUBBER MOUNTS					
Applied by Mount OEM. Not to be touched up once fitted.					

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number	
A21 - PAINT REMOVER					
Indestructible Paints					
IPSTRIP 500	Biodegradable	N/A	N/A	TBC	
N A Robson					
BACK TO NATURE VIII (not to be used on					
steel substrate)	Biodegradable	N/A	N/A	99-361-6273	

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number
<u>A2</u>	2 - RUST STAIN F	REMOVER		
International				
INTERPLUS 4101 (Yellow)	Biodegradable	N/A	N/A	8030-99-846-2819
INTERPLUS 4103 (Yellow)				
Corrosion source / issue must be rectified				
before use. 6 - 16hrs dwell time. Cover with	Biodegradable	N/A	N/A	8030-99-369-2168
Polythene to keep wet. Excessive orders				
require suitable justification.				

Specialist Systems/Materials	Generic Type	VOC g/l	DefStan 07-247	NATO Stock Number
A23 - SMTDUNI	QUE IMMERSED	AREAS - P	UMPS ETC	
Corrocoat Limited	Glass Flake			
CORROCOAT ZIP E	Ероху		N/A	See ANNEX D
POLYGLASS VE	Vinyl Ester		N/A	See ANNEX D
	Glass Flake			
POLYGLASS VE HAND APPLIED	Vinyl Ester		N/A	See ANNEX D
POLIGLASS VE HAIND APPLIED	Glass Flake		IN/A	See ANNEX D
POLYGLASS VEF	Vinyl Ester		N/A	See ANNEX D
POLIGLASS VEF	Glass Flake		IN/A	See ANNEX D
DOLVOLAGO ZIDOGAT	Polyester		N/A	See ANNEX D
POLYGLASS ZIPCOAT	Glass Flake		IN/A	See ANNEX D

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number	
A24 - MORDANT REAGENT					
Sherwin-Williams Protective & Marine					
Coatings					
MORDANT WASH L703 (Pre treatment for	Blue Mordant	307	N/A	6810-99-861-9824	
non-ferrous metals)	Solution				

Specialist Systems/Materials	Generic Type	VOC g/l	DefStan 07-247	NATO Stock Number	
A25 - CLEANING DETERGENT					
Arrow Chemicals	Detergent				
Ensign	Concentrate	0	N/A	TBC	

Specialist Systems/Materials	Generic Type	VOC g/l	DefStan 07-247	NATO Stock Number
A26	- DAMP SURFAC	E PRIMER		
PPG Protective & Marine Coatings				
Sigmacover 280	Anticorrosive	432	A1	8010-99-569-7697
Sherwin-Williams Protective & Marine				
Coatings	EpoxyZinc			
Macropoxy M111	Phosphate	383	PA	8010-99-884-5957

Specialist Systems/Materials	Generic Type	VOC g/l	DefStan 07-247	NATO Stock Number	
A27 - HANGAR DOORS FINISH					
<u>HMG</u>					
T-Phos 53 Pre-treatment	Primer	TBC	DΛ	TBC	
Architectural Polyester 827 Series	Top Coat	TBC	PA	TBC	

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number				
A28 - RUST INHIBITOR								
DURIEU S.A								
DURIEU RUSTOL OWATROL OIL	Alkyd resins	750	N/A	8030-14-605-5515				

Specialist Systems/Materials	Generic Type VOC g/l		DefStan 07-247	NATO Stock Number					
A29 - EXTERNAL DECK BROW POSITIONS FOR MCM									
Belzona									
Belzona 4131 Magma Screed	Screed	N/A	N/A	8030-99-753-8764					
Belzona 4911 Magma TX Conditioner	Resin	N/A	N/A	8030-99-811-6037					
Belzona 5811 Immersion Grade	N/A	32	N/A	See ANNEX D					
Belzona 9221 Surefoot Grit	Grit	N/A	N/A	5350-99-436-3070					

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number
A30	- POWDER COATI	NG (Interna	<u>i)</u>	
International				
Interpon Redux Plus AL258F	Primer	TBC	A2	TBC
Interpon D1036 Satin (70)	Top Coat	TBC	AZ	TBC
PPG Protective & Marine Coatings				
T-Phos 53 Pre-treatment	Primer	TBC	A2	TBC
Envirocron PCS P4 Series	Top Coat	TBC	AZ	TBC
Trimite				
T-Phos 53 Pre-treatment	Primer	TBC	4.2	TBC
P9201	Top Coat	TBC	A2	TBC

Specialist Systems/Materials	Generic Type	VOC g/l	DefStan 07-247	NATO Stock Number					
A31 - POWDER COATING (External)									
<u>HMG</u>									
T-Phos 53 Pre-treatment	Primer	TBC	N/A	TBC					
Architectural Polyester 827 Series	Top Coat	TBC	IN/A	TBC					

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number
A32 - AIR CRAFT CARR	IER METAL SPRA	YED LANDI	NG SPOT S	<u>EALANT</u>
Indestructible Paints				
CDCR2 Deck Coating	N/A	480	N/A	See ANNEX D

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number
A33 - DAZ	ZLE PAINT SCHEME	FOR OPV	BATCH 1	
Hempel Paints Ltd				
Hempels Pro Acrylic 55883	TBC	380	N/A	See ANNEX D

Specialist Systems/Materials	Generic Type	VOC g/I	DefStan 07-247	NATO Stock Number						
A34 - DAZZLE	A34 - DAZZLE PAINT SCHEME FOR OPV BATCH 2									
International										
Interfine 629 HS	Acrylic	339	N/A	See ANNEX D						

ANNEX B: WHOLE SHIP SPECIFICATION

1. Annex B covers the paint coatings that have been approved for use in surface ship areas. The following information is included for each product:

- a. The manufacturer,
- b. The system,
- c. The paint type,
- d. The number of coats required,
- e. The Nominal Dry Film Thickness (NDFT) per coat,
- f. The Nominal Wet Film Thickness (NWFT) per coat,
- g. The minimum and maximum overcoating intervals at 20°C,
- h. The DStan 07-247 category if applicable and,
- i. The VOC of the product.
- 2. Products highlighted in blue, represent products that do not fully meet the MoD requirements, in this instance <u>DESShips-ENG-TES-husbandry</u> should be contacted to ensure the product is suitable for the intended use.
- 3. DStan 07-247 references highlighted in grey represent products that are Pending Assessment (PA) and at current reaction to fire is unknown. Users should consider this when selecting products ensuring that any decision made is captured in the platform's safety case.
- 4. VOC values in a grey box highlight that the VOC exceeds that of the area requirement, users should consider this information when selecting products.
- 5. It is to be noted that Area K 'FLIGHT AND WEATHERDECK SYSTEMS DStan 80-134' aligns with Def Stan 80-134 issue 5. Significant changes have been made to Def Stan 80-134 and can be found in issue 6 of the document. WARPAINT will be updated to reflect these changes in October 25 issue. Users are encouraged to refer to Def Stan 80-134 to ensure that the coating they are selecting is appropriate for the required use.

Manufacturer	System	Туре	No. Of	NDFT/NWFT Per coat (µm)		Recoat erval	DefStan 07-247	VOC
			coats	Per coat (µm)	Min	Max	07-247	g/l
			A&B and C					
		A&B - BELO			٥,			
	<u>c</u>	= ANTIFOULING F	<u>-INISH (SEL</u> Colour - Red		<u>3)</u>			
	Ī		Coloui - Red			1		
Ol and Delate	Primer: Bannoh 1500	Epoxy Primer	1	150/208	9 hrs	14 days		286
Chugoku Paints (UK) Ltd	Tie Coat: Bannoh 1500 RZ	Epoxy Tie Coat	1	100/156	8 hrs	5 days	N/A	319
(011) 210	Finish: Sea Grandprix 1000L	Hydrolysing Silyl	2	150/268	5 hrs	#		408
Hempel Paints Ltd	Primer: Hempadur Quattro 17634	Epoxy Primer	2	125/173	6 hrs	90 days		276
	Tie Coat: Hempadur 49183	Ероху	1	TBC	TBC	TBC	N/A	397
	Finish: Hempels AF Globic 9000	SPC AF	2	100/172	10 hrs	#		370
Hempel Paints	Primer: Hempadur Quattro 17634	Epoxy Primer	2	125/173	6 hrs	90 days	N1/0	286
Ltd (Diving	Tie Coat: Hempadur 49183	Ероху	1	TBC	TBC	TBC	N/A	397
Lines)	Finish: Hempasil 77300	Fouling Defence	1	150/225	TBC	#		287
	Primer: Intergard 5000	Primer	1	175/213	12 hrs	2 months		179
International	Tie Coat: Intergard 263	Epoxy Tie Coat	1	75/131	8 hrs	5 days	N/A	379
	Finish: Intersmooth 7460	SPC AF	2	125/231	12 hrs	28 days	-	425
	Primer: Jotacote Universal N10	Epoxy Primer	TBC	175/105	2 hrs	14 days		239
Jotun Paints (Europe) Ltd	Tie Coat: Safeguard Universal ES	Ероху	1	75/161	10 hrs	3 days	N/A	330
	Finish: Seaquantum Ultra S	Hydrolysing Silyl	2	125/250	7 hrs	#		460

Manufacturer	System	Туре	No. Of	NDFT/NWFT Per coat (µm)	20°C F Inte	Recoat rval	DefStan 07-247	VOC g/l
			coats	i ei coat (μiii)	Min	Max	07-247	9/1
PPG Protective & Marine Coatings	Primer: Sigmaprime 700	Epoxy Tie coat	1	150	12 hrs	3 days	N/A	227
	Tie Coat: Sigmacover 555	Epoxy Tie coat	1	75	8 hrs	3 days		387
	Finish: Sigma Ecofleet 530	SPC AF	1	110/183	6 hrs	#		339

Manufacturer	System	Туре	No. Of	NDFT/NWFT		Recoat erval	DefStan	VOC			
			coats	Per coat (µm)	Min	Max	07-247	g/l			
	A&B and D										
	A&B – BELOW WATER HULL PRIMER D – ANTIFOULING SYSTEM (Foul Release – FRC 5+ yr life)										
	<u>D – A</u>		Colour - Red		<u>r lite)</u>						
Chugoku Paints	Primer: Bannoh 1500	Epoxy Primer	1	150/208	9 hrs	120 days		286			
(UK) Ltd (Can be used for	Tie Coat: CMP Bioclean SG R	Epoxy Tie Coat	1	100/167	4 hrs	#	N/A	385			
Propeller & Rudder)	Finish: CMP Bioclean R	Silicone Elastomer	1	200/317	7 hrs	#		337			
	Primer: Bannoh 1500	Epoxy Primer	1	150/208	9 hrs	120 days	N/A	286			
Chugoku Paints (UK) Ltd	Tie Coat: CMP Bioclean SG R	Epoxy Tie Coat	1	100/167	4 hrs	#		385			
(Biocide Free)	Finish: CMP Bioclean HB	Silicone Elastomer	1	200/253	#	#		261			
	Primer: Bannoh 1500	Epoxy Primer	1	150/208	9 hrs	120 days		286			
Chugoku Paints (UK) Ltd	Tie Coat: CMP Bioclean SG R	Epoxy Tie Coat	1	100/167	4hrs	#	N/A	385			
(Biocidal)	CMP Bioclean R	Silicone Elastomer	1	100/159	7hrs	#	— N/A	337			
	CMP Bioclean Plus	Silicone Elastomer	1	200	-	_		270			

Manufacturer	System	Туре	No. Of	NDFT/NWFT		Recoat erval	DefStan 07-247	VOC
			coats	Per coat (µm)	Min	Max	07-247	g/l
	Primer: Hempadur Quattro 17634	Epoxy Primer	2	125/173	6 hrs	90 days		276
Hempel Paints Ltd	Tie Coat: Hempels Nexus II 27400	Silicon	1	100/175	#	#	N/A	400
	Hempasil X3+ 87500	Hydrogel Silicone	1	150/211	6 hrs	#		265
	Primer: Hempadur Quattro 17634	Epoxy Primer	2	125/173	6 hrs	90 days		276
Hempel Paints Ltd (Repair)	Tie Coat (Repair only): Hempasil Nexus X-Tend 27500	Silicone	1	120/185	8 hrs	48 hrs	N/A	259
	Hempasil X3+ 87500	Hydrogel Silicone	1	150/211	6 hrs	#		265
	Primer: Hempadur Quattro 17634	Epoxy Primer	2	125/173	6 hrs	90 days		276
Hempel Paints Ltd (Cold Water)	Tie Coat: Hempels Nexus II 27400	Silicon	1	100/175	#	#	N/A	400
	Finish: Hempaguard X7 89900 (Cold Water)	Fouling Defence	1	150	6 hrs	48 hrs	276 N/A 259 265 276 N/A 400 262 N/A 400 262 276	262
Hempel Paints	Primer: Hempadur Quattro 17634	Epoxy Primer	2	125/173	6 hrs	90 days		276
Ltd (Warm Water)	Tie Coat: Hempels Nexus II 27400	Silicon	1	100/175	#	#	N/A	400
vvaler)	Finish: Hempaguard X7 89900 (Warm Water)	Fouling Defence	2	100	6 hrs	48 hrs		262
	Primer: Hempadur Quattro 17634	Epoxy Primer	2	125/173	6 hrs	90 days		276
Hempel Paints Ltd (Cold Water Repair only)	Tie Coat (Repair only): Hempasil Nexus X-Tend 27500	Silicone	1	120/185	8 hrs	48 hrs	N/A	259
	Finish: Hempaguard X7 89900 (Cold Water)	Fouling Defence	1	150	6 hrs	48 hrs		262

Manufacturer	System	Туре	No. Of	NDFT/NWFT Per coat (µm)		Recoat erval	DefStan	VOC g/l
			coats	Per Coat (µIII)	Min	Max	07-247	g/i
Hempel Paints	Primer: Hempadur Quattro 17634	Epoxy Primer	2	125/173	6 hrs	90 days		276
Ltd (Warm Water Repair only)	Tie Coat (Repair only): Hempasil Nexus X-Tend 27500	Silicone	1	120/185	8 hrs	48 hrs	N/A	259
Offiy)	Finish: Hempaguard X7 89900 (Warm Water)	Fouling Defence	2	100	6 hrs	48 hrs	07-247	262
Hempel Paints	Primer: Hempadur Quattro 17634	Epoxy Primer	2	125/173	6 hrs	90 days	N/A	276
Ltd (Divers Lines)	Tie Coat: Hempels Nexus II 27400	Silicon	1	100/175	#	#		400
	Finish: Hempasil 77300	Fouling Defence	1	150/225	TBC	#		287
Hempel Paints	Primer: Hempadur Quattro 17634	Epoxy Primer	2	125/173	6 hrs	90 days	N/A N/A	276
Ltd (Divers Lines Repair only)	Tie Coat (Repair only): Hempasil Nexus X-Tend 27500	Silicone	1	120/185	#	#		400
	Finish: Hempasil 77300	Fouling Defence	1	150/225	TBC	#		287
	Primer: Intergard 5000	Primer	2	125/152	12 hrs	2 months		179
International	Tie Coat: Intersleek 737	Silicone	1	100/175	4 hrs	7 days	NI/A	325
international	Finish: Intersleek 1100SR	Slime Release Fluoropolymer	1	150/208	24 hrs	#	IN/A	248
	Primer: Jotacote Universal N10	Epoxy Primer	1	175/105	2 hrs	14 days	N/A	239
Jotun Paints (Europe) Ltd	Tie Coat: Safeguard Universal ES	Ероху	1	75/161	10 hrs	3 days		330
	Finish: Seaquest	AF Foul Release	1	170/225	#	#		247

Manufacturer	System	Туре	No. Of coats	NDFT/NWFT Per coat (µm)	20°C Recoat Interval		DefStan 07-247	VOC
					Min	Max	07-247	g/l
PPG Protective & Marine Coatings	Primer: Sigmaprime 700	Epoxy Tie coat	2	150	12 hrs	3 days		227
	Tie Coat: Sigmaglide 790	Silicone Tiecoat	1	150/190	12 hrs	5 days	N/A	187
	Finish: Sigmaglide 1290	Silicone Foul Release	1	180	#	#		118

Manufacturer	System	Туре	No. Of	NDFT/NWFT Per coat (µm)	20°C Recoat Interval		DefStan	VOC
			coats		Min	Max	07-247	g/l
			A&B and F					
				<u>IULL PRIMER</u>				
				G FINISH (SPC)				
	1	(Colour - Blac	k '			 	
Chugoku Pointo	Primer: Bannoh 1500	Epoxy Primer	1	150/208	9 hrs	120 days	N/A	286
Chugoku Paints (UK) Ltd	Tie Coat: Bannoh 1500 RZ	Epoxy Tie Coat	1	100/156	8 hrs	5 days		319
(ON) Liu	Finish: Sea Grandprix 660 HS	SPC AF	1	150/224	5 hrs	#		324
Hama al Dainta	Primer: Hempadur Quattro 17634	Epoxy Primer	1	125/173	6 hrs	90 days	N/A	276
Hempel Paints Ltd	Tie Coat: Hempadur 49183	Ероху	1	TBC	TBC	TBC		397
Liu	Finish: Hempels AF Globic 9000 78952	SPC AF	2	100/172	10 hrs	#		370
Hempel Paints Ltd (Divers Lines)	Primer: Hempadur Quattro 17634	Epoxy Primer	1	125/173	6 hrs	90 days	N/A	276
	Tie Coat: Hempadur 49183	Ероху	1	TBC	TBC	TBC		397
	Finish: Hempasil 77300	Fouling Defence	1	150/225	TBC	#		287
International	Primer: Intergard 5000	Primer	1	175/213	12 hrs	2 months	N/A	179
	Tie Coat: Intergard 263	Epoxy Tie Coat	1	75/132	8 hrs	5 days		379
	Finish: Interspeed 6400	SPC AF	2	60/100	6 hrs	#		358

Manufacturer	System	Туре	No. Of coats	NDFT/NWFT Per coat (µm)	20°C Recoat Interval		DefStan	VOC
					Min	Max	07-247	g/l
Jotun Paints (Europe) Ltd	Primer: Jotacote Universal N10	Epoxy Primer	TBC	175/105	2 hrs	14 days	N/A	239
	Tie Coat: Safeguard Universal ES	Ероху	1	75/161	12 hrs	4 days		359
	Finish: Seaquantum Classic S	Silyl SPC AF	1 or 2	150/300	7 hrs	#		460
PPG Protective & Marine Coating	Primer: Sigmaprime 700	Epoxy Tie coat	1	150	12 hrs	3 days	N/A	227
	Tie Coat: Sigmacover 555	Epoxy Tie Coat	1	75	8 hrs	3 days		387
	Finish: Sigma Ecofleet 530	SPC AF	1	110/183	6 hrs	#		339

Manufacturer	System	Туре	No. Of	NDFT/NWFT Per coat (μm)	20°C Recoat Interval		DefStan 07-247	VOC g/l	
			coats		Min	Max	01-241	9/1	
			G&H and J						
Area G & H – ABOVE WATER HULL AND SUPERSTRUCTURE & PRIMER									
	<u>Area J</u>			PERSTRUCTURE	<u>FINISH</u>				
		Colour – Light W	eatherwork G	Frey BS381C 676		1			
Hempel Paints	Primer: Hempadur Quattro 17634	Epoxy Primer	2	150/208	6 hrs	90 days	. PA	276	
Ltd	Finish: Pro acrylic 55883	Acrylic	1	50/89	12 hrs	#		380	
International	Primer: Intergard 5000	Primer	2	150/183	12 hrs	14 days	- A1	179	
International	Finish: Interfine 878	Polysiloxane	1	50/69	4 hrs	#		246	
Jotun Paints	Primer: Jotamastic 80	Anticorrosive	2	200/250	10 hrs	#	U	145	
(Europe) Ltd	Finish: Hardtop CA	Acrylic	1	75/125	5 hrs	#		340	
PPG Protective & Marine Coating	Primer: Sigmacover 400	Ероху	2	125/147	16 hrs	3 months	PA PA	106	
	Finish: PSX 700	Polysiloxane	1	75/83	13 hrs	unlimited		164	

Manufacturer	System	Туре	No. Of	NDFT/NWFT	20°C F	Recoat rval	DefStan	VOC
	, , , ,	, , , , , , , , , , , , , , , , , , ,	coats	Per coat (µm)	Min	Max	07-247	g/l
Sherwin Williams	Primer: Macropoxy C425V2	Epoxy Zinc Phosphate	2	100/133	4 hrs	#		186
Protective &	Tie Coat: Sherwin M671	Tie Coat	1	35/67	4 hrs	#	PA	380
Marine Coatings	Finish: Kem-Kromik A165	Silicone Alkyd	1	35/69	16 hrs	#		407
Sherwin Williams	Primer: Macropoxy C425V2	Epoxy Zinc Phosphate	2	100/133	4 hrs	#	Λ1	186
Protective &	Finish: Acrolon 1850	Acylic Epoxy	1	75/125	3 hrs	#	A1	345

Manufacturer	System	Type	No. Of	NDFT/NWFT Per coat (µm)		Recoat rval	DefStan 07-247	VOC g/l
			coats	rei coat (µiii)	Min	Max	07-247	g/i
			Area K					
	·			<u>EMS – DEF STAN</u>				
	Colour – Flight Deck (Ex	tra Dark Sea Grey	BS 381C) Ha	anger Deck (Dark A	dmiralty Gre	y BS 381C)		
Chugoku Paints	Primer: Umeguard HS	Ероху	1	125/162	7 hrs	#		158
(UK) Ltd (Hanger and	Finish: Camideck Finish type 1	Non Skid	2	190/352	6 hrs	30 days	PA	414
Weather deck)	Hanger Deck Repair: Camideck Repair Kit Type 1	Non Skid						
Chugoku Paints	Primer: Umeguard HS	Ероху	1	125/162	7 hrs	#		158
(UK) Ltd (Flight and Weather	Finish: Camideck Finish type 2	Non Skid	2	208/353	16 hrs	#	PA	374
deck)	Hanger Deck Repair: Camideck Repair Kit Type 2							

Manufacturer	System	Туре	No. Of	NDFT/NWFT Per coat (µm)	20°C F Inte	Recoat rval	DefStan 07-247	VOC g/I
			coats	rei coat (μπ)	Min	Max	07-247	g/i
Hempel Paints Ltd (Hanger and Weather deck)	Primer: Hempadur 45880 MIO 12430	Ероху	1	100/125	7 hrs	#	PA	198
	Finish: Hempels Non-skid 45340	Non Skid	2	200/317	6 hrs	30 days	FA	335
	Repair: Hempels deck Repair Kit 942 GB ²							
International	Primer: Intergard 5000	Primer	1	150/183	12 hrs	14 days	A1	179
(Flight and Weather deck)	Finish: Intershield 851	Non Skid	2	300/390	16 hrs	#	_ A1	169
International	Primer: Intergard 5000	Primer	1	150/183	12 hrs	14 days		179
(Hangar and Weather deck)	Hanger Deck Finish: Intershield 852	Non Skid	2	200/267	12 hrs	#	A1	134
Sherwin Williams	Primer: Macropoxy C425V2	Epoxy Zinc Phosphate	1	125/167	4 hrs	#	PA	186
Marine Coatings	Finish: Epidek M339		2	200/282	4 hrs	#		250
	Repair: Epidek M339			282	4 hrs	#		250

Manufacturer	System	Туре	No. NDFT/NWFT		20°C Recoat Interval		DefStan 07-247	VOC	
			coats	Per coat (µm)	Min	Max	07-247	g/l	
			Area L&M						
	INTERIOR DRY COMPARTMENTS								
		Colour - As	sh Grey BS4	800 00A01					
Acotec	Humidur FP	Ероху	1	400/400	24 hrs	Unlimited	A1	0	
	Primer: Intergard 5000	Primer	1	125/152	12 hrs	#		179	
International	Finish: Intergard 1735	Waterborne Epoxy	1	50/100	12 hrs	#	A1	132	

² Ordered through Maker Coatings

Manufacturer	System	Type	No. Of	NDFT/NWFT	20°C F Inte	Recoat rval	DefStan	VOC
	·	2.	coats	Per coat (µm)	Min	Max	07-247	g/l
Sherwin Williams	Primer: Macropoxy C425V2	Epoxy Zinc Phosphate	1	125/167	5 hrs	#	PA	186
Protective & Marine Coatings	Finish: Sher-Cryl M770	Sealercoat	1	25	3 hrs	#	1 //	78

Manufacturer	System	Туре	No. Of	NDFT/NWFT		Recoat erval	DefStan	VOC		
	•	,,	coats	Per coat (µm)	Min	Max	07-247	g/l		
			Area N&O							
	INTERIOR WET COMPARTMENTS Colour - Ash Grey BS4800 00A01 or BS381C 676 (Citadel lobbies)									
Acotec	Humidur FP	Ероху	1	400/400	24 hrs	Unlimited	A1	0		
late metion of	Primer: Intergard 5000	Primer	1	125/152	24 hrs	#	Δ.4	179		
International	Finish: Intergard 1735	Waterbourne Epoxy	1	50/100	12 hrs	#	A1	132		
PPG Protective & Marine Coating	Primer: Sigmacover 400	Ероху	1	100/118	16 hrs	#	PA	106		
(Cleansing Station)	Finish: PSX 700	Polysiloxane	1	125/139	4.5 hrs	#	- FA	120		
Sherwin Williams Protective &	Primer: Macropoxy C425V2	Epoxy Zinc Phosphate	1	125/167	5 hrs	#	PA	186		
	Finish: Macropoxy M630V2	Ероху	1	75/150	24 hrs	#	170	0		

Manufacturer	System	Туре	No. Of	NDFT/NWFT Per coat (µm)		Recoat rval	DefStan 07-247	VOC g/l
			coats	rei coat (µiii)	Min	Max	07-247	g/i
Sherwin Williams	Primer: Macropoxy C425V2	Epoxy Zinc Phosphate	1	125/167	5 hrs	#		186
Protective & Marine Coatings (Magazine Finish)	Finish: Macropoxy M630V2	Ероху	1	75/150	24 hrs	#	PA	0

Manufacturer	System	Туре	No. Of	NDFT/NWFT		Recoat erval	DefStan	VOC
	 	.,,,,,	coats	Per coat (µm)	Min	Max	07-247	g/l
		15.17	Area P					
			FERIOR DEC Green BS480					
Acotec	Humidur FP	Ероху	1	400/400	24 hrs	Unlimited	A1	0
Hempel Paints Ltd (Cleansing	Primer: Hempadur 45880 MIO 12430	Ероху	1	125/156	7 hrs	#	PA	198
Station)	Finish: Hempadur 45143	Ероху	1	100/167	8 hrs	#		375
lata wa ati a a al	Primer: Intergard 5000	Primer	1	125/152	24 hrs	#	0.4	179
International	Finish: Intergard 1735	Ероху	1	50/100	12 hrs	#	A1	132
International	Primer: Intergard 5000	Primer	1	125/152	24 hrs	#	0.4	179
(Cleansing Station)	Finish: Interfine 979	Polysiloxane	1	125/164	4 hrs	#	A1	165
PPG Protective	Primer: Sigmacover 400	Ероху	1	100/118	16 hrs	3 months	DA	163
& Marine Coating	Finish: Sigmacover 400	Ероху	1	100/118	16 hrs	3 months	PA	163
Sherwin Williams	Primer: Macropoxy C425V2	Epoxy Zinc Phosphate	1	125/167	5 hrs	#	PA	186
Protective & Marine Coatings	Finish: Macropoxy M630V2	Ероху	1	75/150	24 hrs	#	17	0

Manufacturer	System	Туре	No. Of	NDFT/NWFT	20°C Recoat Interval		DefStan	VOC	
			coats	Per coat (µm)	Min	Max	07-247	g/l	
	Area Q								
	BATTERY COMPARTMENTS								
		Colour - As	sh Grey BS4	300 00A01					
	Primer: Intergard 5000	Primer	1	150/183	12 hrs	#		179	
International	Finish: Intergard 1735	Waterborne Epoxy	1	50/100	12 hrs	#	A1	132	
Sherwin Williams	Primer: Macropoxy C425V2	Epoxy Zinc Phosphate	1	100/133	4 hrs	#	. PA	197	
Protective & Marine Coatings	Finish: Macropoxy M630V2	Ероху	1	75/150	24 hrs	#	17	0	

Manufacturer	System	Туре	No. Of	NDFT/NWFT		Recoat rval	DefStan	voc	
	•	2.	coats	Per coat (µm)	Min	Max	07-247	g/l	
	Area R <u>CABLE LOCKERS AND COFFERDAMS</u> Colour – White RAL 9010								
Acotec	Humidur FP	Ероху	1	400/400	24 hrs	Unlimited	A1	0	
Chugoku Paints (UK) Ltd	Bannoh 1500	Epoxy Primer	1	125/171	9 hrs	120 days	PA	286	
International	Intergard 5000	Primer	1	150/183	12 hrs	#	A1	179	
Jotun Paints (Europe) Ltd	Jotacote Universal N10	Epoxy Primer	2	150/TBC	2 hrs	14 days	A1	239	
Sherwin Williams Protective & Marine Coatings	Macropoxy L524	Ероху	2	125/195	12 hrs	#	PA	296	

Manufacturer	System	Туре	No. Of	NDFT/NWFT		Recoat erval	DefStan	286 195 276 320 179 212 290 150 310 2 20 18
	, , , ,	21	coats	Per coat (µm)	Min	Max	07-247	g/I
	BL	ACK/GREY & WAT		ST TANKS IMO PS standard colour)	PC			
Chugoku Paints	Bannoh 1500	Epoxy Primer	2	160/219	9 hrs	120 days		286
(UK) Ltd	Spot Repair: CMP NOVA 5000 Barrier	MIO Epoxy	1	300/300	12 hrs	7 days	N/A	195
Hempel Paints	Water Ballast: Hempadur Quattro 17634	Epoxy Primer	2	160/222	6 hrs	90 days	N/A	276
Ltd	Black & Grey Water: Hempadur 85671	Epoxy Phenolic	2	100/147	36 hrs	5 days	IN//A	320
	Water Ballast: Intergard 5000	Primer	2	160/195	12 hrs	3 months		179
International	Black & Grey Water: Interline 850	Epoxy Phenolic	2	125/164	6 hrs	30 days	N/A	212
	Galley Grey Water: Interline 994		3	100/143	44 hrs	25 days	5	290
	Water Ballast: Balloxy HB	Anticorrosive	1	160/195	10 hrs	#		150
Jotun Paints (Europe) Ltd	Black & Grey Water: Tankguard Storage	Epoxy Phenolic	1	150/238	10 hrs	30 days	N/A	310
(Black & Grey Water: Tankguard DW	Ероху	1	150/150	12 hrs	5 days		2
Maker Coating	Corroless EPF	Ероху	1	200	16 hrs	2 days	N/A	20
Systems Ltd	Corroless RF35	Ероху	1	200	16 hrs	3 days	IN/A	18
PPG Protective & Marine Coatings	Black & Grey Water: Sigmashield 880	Polyamine	1	350	3.5 hrs	14 days	N/A	350
Sherwin Williams Protective & Marine Coatings	Water Ballast Tanks: Macropoxy L524	Ероху	2	160/250	12 hrs	#	N/A	296

Manufacturer	System	Туре	No. NDFT/NWFT		IIILEI Vai		DefStan 07-247	voc		
		21	coats	Per coat (µm)	Min	Max	07-247	g/l		
	Area T MACINERY SPACE BILGES Colour – White RAL 9010									
Chugoku Paints (UK) Ltd	Bannoh 1500	Epoxy Primer	2	125/171	9 hrs	30 days	PA	286		
International	Intergard 5000	Primer	1	175/213	12 hrs	3 months	A1	179		
Sherwin Williams	Macropoxy L524	Ероху	2	125/195	12 hrs	#		296		
Protective & Marine Coatings	Hygiene Coat: Macropoxy M630V2	Ероху	1	75/150	12 hrs	#	PA	0		

Manufacturer	System	Туре	No. Of	NDFT/NWFT		Recoat erval	DefStan 07-247	VOC		
	·		coats	Per coat (µm)	Min	Max		g/l		
	AVCAT DIESON LUIS	O O LIVERALILIC O	Area U	CTEM DEE STAN	90 07 (UICI	T COLLDS)				
	AVCAT, DIESON, LUB & HYDRAULIC OIL TANKS SYSTEM DEF STAN 80-97 (HIGH SOLIDS) Colour – White (Manufacturers standard colour)									
Chugoku Paints (UK) Ltd	Epicon T-800	Epoxy Phenolic	2	125/192	16 hrs	21 days	N/A	359		
Hempel Paints Ltd	Hempadur 85671	Epoxy Phenolic	3	100/147	36 hrs	21 days	N/A	320		
International	Interline 850	Epoxy Phenolic	2	125/164	6 hrs	30 days	N/A	212		
Jotun Paints (Europe) Ltd	Tankguard Storage	Epoxy Phenolic	1	125/198	10 hrs	30 days	N/A	310		
Maker Coating	Corroless EPF	Ероху	1	200	16 hrs	3 days	N/A	20		
Systems Ltd	Corroless RF35	Ероху	1	200	16 hrs	3 days	N/A	34		
PPG Protective & Marine Coatings	Sigmaguard CSF 650	Ероху	1	350/350	24 hrs	20 days	N/A	143		

Manufacturer System		Type No.		NDFT/NWFT Per coat (µm)		Recoat rval	DefStan 07-247	VOC g/l
			coats	i ei coat (μiii)	Min	Max	01-241	9/1
Sherwin Williams Protective & Marine Coatings	Macropoxy M922	Ероху	2	200	4 hrs	14 days	N/A	143

Manufacturer	System		No. Of	NDFT/NWFT		Recoat erval	DefStan 07-247	VOC
	•	,,	coats	Per coat (µm)	Min	Max		g/l
			Area V					
		<u>POTAB</u>	LE WATER	TANKS				
		Colour – White (m	anufacturers	standard colours)				
Hempel Paints Ltd	Hempadur 35560	Solvent Free Epoxy	2	200/200	24 hrs	30 days	N/A	0
International	Interline 925	Ероху	1	300/300	18 hrs	3 days	N/A	1
PPG Protective & Marine Coatings	Sigmaguard CSF 585	Ероху	1	300	24 hrs	20 days	N/A	6

Manufacturer	System	No. Type Of		NDFT/NWFT		Recoat rval	DefStan	VOC	
			coats	Per coat (µm)	Min	Max	07-247	g/l	
			Area W						
	AQUEOUS FILM-FORMING FOAM (AFFF) TANKS								
		Colour – White (m	anufacturers	standard colours)					
Chugoku Paints (UK) Ltd	Epicon T-800	Epoxy Phenolic	2	125/192	16 hrs	21 days	N/A	359	
Hempel Paints Ltd	Hempadur 85671	Epoxy Phenolic	3	100/147	36 hrs	21 days	N/A	320	
International	Interline 704	Ероху	2	125/236	23 hrs	21 days	N/A	425	
Jotun Paints (Europe) Ltd	Tankguard DW	Ероху	1	150/150	12 hrs	5 days	N/A	2	

Manufacturer	System	Type No.		NDFT/NWFT		Recoat rval	DefStan 07-247	VOC
			coats	Per coat (µm)	Min	Max	07-247	g/l
Maker Coating	Corroless EPF	Ероху	1	200	16 hrs	2 days	N/A	20
Systems Ltd	Corroless RF35	Ероху	1	200	16 hrs	3 days	IN/A	34
PPG Protective								
& Marine	Sigmaguard CSF 650	Ероху	1	350/350	24 hrs	20 days	N/A	143
Coatings			,	223,000			,, ,	110

Manufacturer	System	System Type	No. Of NDFT/NWFT Per coat (μm)		Recoat erval	DefStan	VOC			
		,,		Per coat (µm)	Min	Max	07-247	g/l		
			Area X			•				
	<u>DEMI</u>	NERALISED WAT	ER TANKS (Max Temperature	90°C)					
	Colour – White (manufacturers standard colours)									
Hempel Paints Ltd	Hempadur 85671	Epoxy Phenolic	3	100/147	36 hrs	21 days	N/A	320		
International	Interline 925	Ероху	1	300/300	18 hrs	3 days	N/A	1		
PPG Protective & Marine Coatings	Sigmaguard CSF 650	Ероху	1	350/350	24 hrs	20 days	N/A	143		

Manufacturer	System	Туре	No. Of	Of NDF1/NWF1		Recoat rval	DefStan	voc		
			coats	Per coat (µm)	Min	Max	07-247	g/l		
			Area Y							
	EPOXY HOLDING PRIMER									
		Colour – See A	nnex D for a	vailable colours						
Hempel Paints Ltd	Hempadur 15570	Ероху	1	40/74	#	#	A2	420		
International	Intergard 276	Ероху	1	30/64	6 hrs	#	A1	411		

Manufacturer	System	Туре	No. Of	NI)FI/NWFI		Recoat rval	DefStan 07-247	VOC g/l
			coats	rei coat (µiii)	Min	Max	01-241	9/1
PPG Protective								
& Marine	Sigmacover 280	Anticorrosive	1	50/88	8 hrs	TBC	A1	432
Coatings								

Manufacturer	System	Туре	No. Of	NDFT/NWFT		Recoat erval	DefStan 07-247	VOC	
	, , , ,	7,1	coats	Per coat (µm)	Min	Max		g/l	
			Area Z						
PRIMERS FOR NON-FERROUS METALS & FRP									
		Colour – See A	nnex D for a	vailable colours	T	1			
Chugoku Paints (UK) Ltd	Stainless Steel: Bannoh 1500	Epoxy Primer	1	125/171	9 hrs	120 days	PA	286	
Hempel Paints Ltd	Standard: Hempadur 15553	Ероху	1	50/91	2 hrs	#	A2	388	
International	Aluminium, Stainless Steel, Zinc Spray, Galvanise: Intergard 276	Ероху	1	30/64	6 hrs	#	A1	411	
PPG Protective & Marine	Aluminium, Stainless Steel, Zinc Spray, Galvanise: Sigmacover 280	Anticorrosive	1	50/88	8 hrs	3 months	A1	432	
Coatings	FRP Indicator Coat: Sigmacover 400	Ероху	2	125/147	16 hrs	#	PA	106	
Sherwin Williams Protective & Marine Coatings	Aluminium, Galvanise, Stainless Steel: Macropoxy L425	Epoxy Zinc Phosphate	1	35/58	5 hrs	#	PA	346	

Notes:

1. The recoat intervals published above are based on the manufacturer's figures quoted for 20°C (Chugoku Paints, Hempel UK, Maker Coating Systems, PPG Protective & Marine Coatings), 23°C (Jotun Coatings, Sherwin Williams Protective & Marine Coatings) and 25°C (International Paints).

- 2. The number of coats stated in the above table, relate to airless spray application to achieve the stated NDFT. Should brush application be required for touch up and repair then additional coats may be necessary to achieve the required NDFT.
- 3. # = No recoat interval, see Manufacturer's TDS/Application Instructions for requirements.
- 4. It is important to ensure that surfaces are clean and free of contamination when overcoating materials, that have been left exposed, this is especially true for those products with an indefinite recoat interval.

ANNEX C: SUBMARINE SYSTEMS

1. Annex C covers the paint coatings that have been approved for use in submarine areas. The following information is included for each product:

- a. The manufacturer,
- b. The system,
- c. The paint type,
- d. The number of coats required,
- e. The Nominal Dry Film Thickness (NDFT) per coat,
- f. The Nominal Wet Film Thickness (NWFT) per coat,
- g. The minimum and maximum overcoating intervals at 20°C,
- h. The VOC of the product,
- i. The DStan 07-247 category if applicable and,
- j. The BR1326 SMTD category and reference.
- 2. Products highlighted in blue, represent products that do not fully meet the MoD requirements, in this instance <u>DESShips-ENG-TES-husbandry</u> should be contacted to ensure the product is suitable for the intended use.
- 3. DStan 07-247 references highlighted in grey represent products that are Pending Assessment (PA) and at current reaction to fire is unknown. Users should consider this when selecting products. Users should consider this when selecting products ensuring that any decision made is captured in the platform's safety case.
- 4. VOC values in a grey box highlight that the VOC exceeds that of the area requirement, users should consider this information when selecting products.

Manufacturer	System	Туре	No. of Coats	NDFT/NWFT	20°C Recoat Interval		VOC	DefStan 07-	BR
	·		Coats	Per coat (µm)	Min	Max	g/l	247	1326
			AREA S1						
	PRESSUR	RE HULL & SUPER	STRUCTUR	<u>E PRIMER – Untile</u>	ed Areas				
Hempel Paints Ltd	Hempadur 45880	Ероху	2	175/219	8 hrs	30 days	198	N/A	EXT
International	Intergard 5000	Primer	1	175/213	12 hrs	2 month s	179	N/A	EXT
Maker Coating Systems Ltd	Corroless EPF	Ероху	2	200/-	16 hrs	3 days	80	N/A	EXT
Sherwin Williams Protective & Marine Coatings	Macropoxy M922M	Ероху	2	200/-	4 hrs	#	146	N/A	EXT

Manufacturer	System	Туре	No. of Coats	NDFT/NWFT Per coat (µm)	_	Recoat rval	VOC g/l	DefStan 07- 247	BR 1326
			rei coat (µiii)	Min	Max	9/1	241	1320	
			AREA S2a						
ANTIFOULING SYSTEM(S) FOUL RELEASE / DEFENCE (FRC / FD) - Sonar Dome									
		С	olour - Black						
	Primer: Bannoh 1500	Epoxy Primer	1	150/208	9 hrs	120 days	286	N/A	EXT
Chugoku Paints (UK) Ltd	Tie Coat: CMP Bioclean SG R	Epocy Tie Coat	1	100/167	4 hrs	#	385	N/A	EXT
	Finish: CMP Bioclean R	Silicone Elastomer	1	100/154	4 hrs	24 hrs	278	N/A	EXT
	Primer: Hempadur 15570	Ероху	2	125/231	6 hrs	#	406	N/A	EXT
	Tie Coat: Hempels Nexus II 27400	Silicone	1	100/175	#	#	400	N/A	EXT
	Finish: Hempaguard X7 89900	Fouling Defence	2	100/143	6 hrs	#	262	N/A	EXT

Manufacturer	System	Туре	No. of Coats	No. of NDF1/NWF1	20°C Recoat Interval		VOC	DefStan 07- 247	BR 1326
			Coats	Per Coat (µiii)	Min	Max	g/l	241	1320
	Primer: Intershield 300	Ероху	2	125/208	7 hrs	14 days	313	N/A	EXT
International	Tie Coat: Intersleek 737	Silicone	1	100/175	4 hrs	7 days	325	N/A	EXT
	Finish: Intersleek 1100SR	Slime Release	1	150/208	24 hrs	#	248	N/A	EXT
	Primer: Sigmaprime 700	Universal Epoxy	1	125	4 hrs	60 days	313	N/A	EXT
PPG Protective & Marine Coatings	Tie Coat: Sigmaglide 790	Silicone Tie Coat	1	150/190	12 hrs	5 days	187	N/A	EXT
	Finish: Sigmaglide 1290	Silicone Foul Release	1	180/207	#	#	118	N/A	EXT

Manufacturer	System	TVNA		NDFT/NWFT	20°C Recoat Interval		Interval		Interval		VOC	DefStan 07- 247	BR 1326
			Coals	Per coat (µm)	Min	Max	g/l	241	1320				
			AREA S2b										
	<u>ANTIFOUI</u>	LING SYSTEM(S) S			ar Dome								
		С	olour - Black			_							
	Primer: Bannoh 1500	Epoxy Primer	1	150/208	9 hrs	120 days	286	N/A	EXT				
Chugoku Paints (UK) Ltd	Tie Coat: Bannoh 1500 RZ	Tie Coat	1	100/156	8 hrs	5 days	319	N/A	EXT				
	Sea Grandprix 660 HS	SPC AF	1	150/224	5 hrs	#	324	N/A	EXT				
	Primer: Hempadur 15570	Ероху	2	125/231	6 hrs	#	406	N/A	EXT				
Hempel Paints Ltd	Tie Coat: Hempels Nexus II 27400	Silicone	1	100/175	#	#	400	N/A	EXT				
	Hempels AF Olympic + (72950)	SPC AF	2	120/190	8 hrs	#	367	N/A	EXT				

Manufacturer	System	Туре	No. of Coats	NDFT/NWFT Per coat (µm)	20°C Recoat Interval		VOC g/l	DefStan 07- 247	BR 1326
			Coats	rei coat (µiii)	Min	Max	9/1	241	1320
	Primer: Intergard 5000	Primer	1	175/213	12 hrs	2 month s	179	N/A	EXT
International	Tie Coat: Intergard 263	Epoxy Tie Coat	1	75/132	8 hrs	5 days	379	N/A	EXT
	Finish: Interspeed 6400	SPC AF	2	60/100	6 hrs	#	358	N/A	EXT
PPG Protective & Marine	Primer: Sigmaprime 700	Universal Epoxy	1	150	4 hrs	60 days	313	N/A	EXT
Coatings	Tie Coat: Sigmacover 555	Epoxy Tie coat	1	75	8 hrs	3 day	387	N/A	EXT
	Sigma Ecofleet 530	SPC AF	3	100/167	6 hrs	#	339	N/A	EXT

Manufacturer	System Type		No. of NDF1/NWF1		20°C Recoat Interval		VOC	DefStan 07- 247	BR
			Coats	Per coat (µm)	Min	Max	g/l	241	1326
			AREA S3						
	PRESSURE HU	LL & EXTERNAL			Untitled a	ireas			
		C	colour - Black						
Hempel Paints Ltd	Hempadur 49183	Ероху	1	TBC	TBC	TBC	397	N/A	EXT
						2			
International	Intergard 5000	Primer	1	125/152	12 hrs	month	179	N/A	EXT
						S			
Maker Coating Systems Ltd	Corroless EPF	Ероху	1	200/-	16 hrs	2 days	80	N/A	EXT

Manufacturer	System	Туре	No. of Coats	NDFT/NWFT Per coat (µm)	20°C F Inte Min	Recoat rval Max	VOC g/l	DefStan 07- 247	BR 1326		
AREA S4 PERISCOPES & MASTS – Visible portions outside the submarine											
Sherwin Williams Protective & Marine Coatings	Macropoxy L425	Epoxy Zinc Phosphate	1	35/-	5 hrs	#	346	N/A	BLI (A0565g)		

Manufacturer	System	Туре	No. of Coats	NDFT/NWFT Per coat (µm)		Recoat rval Max	VOC g/l	DefStan 07- 247	BR 1326
		UDEDSTRUCTURE	AREA S5	Cananal ataaliisank		•			•
	<u>3</u>	<u>UPERSTRUCTURI</u> O	colour - Black		L				
International	Primer: Intergard 5000	Primer	1	175/213	12 hrs	2 month s	179	NI/A	See ANNEX D
	Finish: Intergard 5000	Primer	1	125/152	12 hrs	2 month s	179	- N/A	BLI, NF (A8103)
PPG Protective & Marine Coatings	Sigmacover 400	Ероху	2	125/147	16 hrs	3 month s	106	N/A	BLI (A6852)

Manufacturer	System	Туре	No. of Coats	NDFT/NWFT	20°C Recoat Interval		VOC	DefStan 07-	BR
				Per coat (µm)	Min	Max	g/l	247	1326
			AREA S6						
			AYS ON CA						
		C	olour - Black						
Hamnal Paints Ltd	Primer: Hempadur 45880 MIO 12430	Ероху	1	100/125	7 hrs	6 hrs	168	DΛ	EXT
Hempel Paints Ltd	Finish: Hempels Non- Skid 45340 Type 1	Non Skid	2	200/317	6 hrs	30 days	335	– PA	EXT
	Primer: Intergard 5000	Primer	1	150/183	12 hrs	4 days	179	TBC	EXT
International —	Finish: TBC							IBC	

Manufacturer	System	Туре	Type No. of Coats		20°C Recoat Interval		VOC g/l	DefStan 07- 247	BR 1326
			AREA S7	Per coat (µm)	Min	Max			
		INTERN	AL DRY SPA	ACES -					
		C	olour - White						
International	Primer: Intergard 5000	Primer	1	125/152	12 hrs	#	179	A1	See ANNEX D
	Finish: Intergard 1735	Waterborne Epoxy	1	50/100	12 hrs	#	132		BCI (A4417)
	_	_	No. of	NDFT/NWFT	20°C F	Recoat	voc	DefStan 07-	BR

Manufacturer	System	Туре	No. of	NDFT/NWFT	20°C R		VOC	DefStan 07-	BR
			Coats	Per coat (µm)	Min	Max	g/l	247	1326
			AREA S8						
	<u>INTERNA</u>	L WET COMPART	•	•	rvation)				
		C	olour - White		,				
International	Primer: Intergard 5000	Primer	1	125/152	12 hrs	#	179	A1	See ANNEX D
	Finish: Intergard 1735	Waterborne Epoxy	1	50/100	12 hrs	#	132		BCI (A4417)
Sherwin Williams Protective & Marine Coatings	Macropoxy C425V2	Epoxy Zinc Phosphate	1	125/167	5 hrs	#	186	PA	See ANNEX D
a manne coalings	Macropoxy M630V2	Ероху	1	75/-	24 hrs	#	0		BLI (A6830)

Manufacturer	System	Туре	No. of Coats	NDFT/NWFT Per coat (µm)	20°C F Inte Min	Recoat rval Max	VOC g/l	DefStan 07- 247	BR 1326
			ARFA SO						

GROUP EXHAUST VALVES - (Consult SDA-IS-Struc3 due to lack of paints)

Manufacturer	System	Туре	No. of Coats	NDFT/NWFT Per coat (µm)	20°C F Inte Min	_	VOC g/I	DefStan 07- 247	BR 1326
	DSRV SEATING - (No p		AREA S10 attempted w	ithout consultatio	n with SI	DA-IS-Str	uc3)		

Manufacturer	System	Туре	No. of Coats	NDFT/NWFT Per coat (µm)		Recoat erval Max	VOC g/l	DefStan 07- 247	BR 1326
	INTERIOR PRESSU	JRE HULL SURFA				1	_		
International (Trafalgar Class Jacket Tank)	Intergard 5000	Primer	- White/Light 2	125/152	12 hrs	3 month	179	N/A	BLI (A5713)
Maker Coating Systems Ltd (Trafalgar Class Hard Tank)	Primer: Corroless EPF	Ероху	1	200/-	16 hrs	2 days	20	N/A	See ANNEX D
,	Finish: TBC								
Maker Coatings Systems Ltd (Trafalgar Class Jacket	Primer: Corroless EPF	Ероху	1	200/-	16 hrs	2 days	20	N/A	See ANNEX D
Tank)	Finish: TBC								
Maker Coating Systems Ltd(External Surfaces)	Primer: Corroless EPF	Ероху	1	200/-	16 hrs	2 days	20	N/A	See ANNEX D
,	Finish: TBC							1	
Performance Polymer Group (Repair Only)	Thermaguard CUI 650	Polysiloxane	TBC	TBC	5 hours	TBC	342	N/A	BLI, BLP, E (A8287)
PPG Protective & Marine Coatings (Trafalgar Class Hard Tanks)	Phenguard 965	Epoxy Phenolic	3	100/157	8 hrs	14 days	329	N/A	BLI (A7390)
PPG Protective & Marine Coatings (Vanguard Class High Pressure Decay Heat Removal (HPDHR)	Phenguard 965	Epoxy Phenolic	3	100/157	8 hrs	14 days	329	N/A	BLI (A7390)

Manufacturer	System	Туре	No. of Coats	NDFT/NWFT Per coat (µm)	20°C F Inte	Recoat rval	VOC g/l	DefStan 07- 247	BR 1326
			Coats	rei coat (µiii)	Min	Max	9/1	241	1320
PPG Protective & Marine Coatings (Astute Class)	Phenguard 965	Epoxy Phenolic	3	100/157	8 hrs	14 days	329	N/A	BLI (A7390)

Manufacturer	System	Type		Type				20°C Recoat Interval		nterval		Interval		DefStan 07-	BR
			Coats	Per coat (µm)	Min	Max	g/l	247	1326						
		REACTOR	AREA S12 R COMPART olour - White												
International (Penetration) (Silver Heat Resistant Aluminium)	Intertherm 50	High Temp Silicone	1-2	25/-	12 hrs	#	495	A2	BLI (A3501)						
International	Primer: Intergard 5000	Primer	1	125/152	12 hrs	#	179	A1	See ANNEX D						
	Finish: Intergard 1735	Waterborne Epoxy	1	50/100	12 hrs	#	132	, , ,	BCI (A4417)						

Manufacturer	System	Туре	No. of Coats	NDFT/NWFT	20°C Recoat Interval		VOC	DefStan 07- 247	BR 1326
			Coats	Per coat (µm)	Min	Max	g/l	241	1326
		<u>INT</u>	AREA S13 ERIOR DECH olour - Green						
International	Primer: Intergard 5000	Primer	1	125/152	12 hrs	#	179	TBC	See ANNEX D
	Finish: TBC								
PPG Protective and Marine Coatings	Sigmacover 400	Ероху	2	125/147	16 hrs	3 month s	106	PA	BLI (A6854)

Manufacturer	System	Туре	No. of	NDFT/NWFT	20°C F Inte		VOC	DefStan 07-	BR 1326
			Coats	Per coat (µm)	Min	Max	g/l	247	1320
Sherwin Williams Protectve & Marine Coatings	Primer: Macropoxy C425V2	Epoxy Zinc Phosphate	1	175/233	8 hrs	#	186	TBC	See ANNEX D
<u> </u>	Finish: TBC								

Manufacturer	System	Type	Type No. of Coats		20°C Recoat Interval		VOC	DefStan 07-	BR
			Coats	Per coat (µm)	Min	Max	g/l	247	1326
		<u>BATTERT</u>	AREA S14 Y COMPAR 34800 00A01						
International	Primer: Intergard 5000	Primer	1	125/152	12 hrs	#	179	TBC	See ANNEX D
	Finish: TBC								
Sherwin Williams Protectve &	Macropoxy C425V2	Epoxy Zinc Phosphate	1	175/233	8 hrs	#	186	PA	See ANNEX D
Marine Coatings	Macropoxy M630V2	Ероху	1	75/-	24 hrs	#	0	. , ,	BLI (A6833)

Manufacturer	System	Туре	No. of Coats	NDFT/NWFT Per coat (µm)	Inte	Recoat rval	VOC g/l	DefStan 07- 247	BR 1326
	MACINE	RY SPACE BILGE	AREA S15	,	Min RAFTS	Max			
		Co	olour - Yellow	V					
International	Intergard 5000	Primer	1	175/213	12 hrs	3 month s	179	A1	BLI (A5713)
International (Finish for Mounted Machinery Rafts)	Primer: Intergard 5000	Primer	1	125/152	12 hrs	3 month s	179	TBC	See ANNEX D
	Finish: TBC	_							

C-9 OFFICIAL

Manufacturer	System	Туре	No. of Coats	NDFT/NWFT Per coat (µm)	20°C F Inte Min	Recoat rval Max	VOC g/l	DefStan 07- 247	BR 1326
	BULK FUEL & OIL, LU		AREA S16 IC & LP AIR	TANKS – Def Sta	n 80-97 (I	ligh Soli	ds)		
			r - White or C		,	J	,		
Chugoku Paints (UK) Ltd	Cleankeep 5000	Solventfree Epoxy	1	300/300	48 hrs	14 days	0	N/A	BLI (A1687)
International	Interline 850	Epoxy Phenolic	2	125/164	8 hrs	30 days	212	N/A	See Annex D
Maker Coating Systems Ltd	Primer: Corroless EPF	Ероху	1	200/-	16 hrs	2 days	20	N/A	See ANNEX D
	Finish: TBC								

Manufacturer	System	Type No. of Coats	NDFT/NWFT	20°C Recoat Interval		I/NVVFI Interval V		VOC		BR
	·		Coats	Per coat (µm)	Min	Max	g/l	247	1326	
			AREA S17							
		<u>POTABI</u>	_E WATER T	ANKS						
International	Interline 925	Ероху	1	300/300	48 hrs	3 days	1	N/A	BLI (A2236)	

Manufacturer	System	Туре	No. of	NDFT/NWFT		Recoat rval	VOC	DefStan 07-	BR 1326
			Coats	Per coat (µm)	Min	Max	g/l	247	1320
			AREA S18						
	<u>SI</u>	OP DRAIN TANK	<u>S</u> – (Alternat	ives being sought)				
		C	Colour - Grey						
Maker Coating Systems Ltd	Primer: Corroless EPF	Ероху	1	200/-	16 hrs	2 days	20	N/A	See ANNEX D
	Finish: TBC						•		

Manufacturer	System	Туре	No. of Coats		20°C Recoat Interval		VOC	DefStan 07- 247	BR 1326
			Coals	Per coat (µm)	Min	Max	g/l	241	1320
			AREA S19						
		AFFF TANKS - (Supplied wit	h Demin water)					
		Coloui	r - (Grey or W	/hite)					
Chugoku Paints (UK) Ltd	Cleankeep 5000	Solvent Free Epoxy	1	300/300	48 hrs	14 days	0	N/A	BLI (A1687)
Maker Coating Systems Ltd	Primer: Corroless EPF	Ероху	1	200/-	16 hrs	2 days	20	N/A	See ANNEX D
	Finish: TBC								

Manufacturer	System	Туре	No. of	NDFT/NWFT	20°C Recoat Interval	VOC	DefStan 07-	BR
			Coats	Per coat (µm)	Min Max	g/l	247	1326

AREA S20

<u>DEMINERALISED WATER TANKS (Max Temperature 90°C)</u> – (Inc. Hotwells, Surge, Reserve Feed, Made Water, Reactor Water Storage Tanks)
Consult 'DES SM PG-NavArch3b' for latest approved coatings

Colour - Grey or White

Manufacturer	System	Туре	No. of Coats	NDFT/NWFT Per coat (µm)	20°C F Inte Min	Recoat rval Max	VOC g/l	DefStan 07- 247	BR 1326
			AREA S21	ad ataal wards)					
		HOLDING PRIM	<u>iek</u> – (biaste	ed Steel Work)	1	1			
Chugoku Paints (UK) Ltd	NZ Primer S	Ероху	1	25/83	16 hrs	#	659	N/A	BLI (A7303)
International	Intergard 269	Epoxy Primer	1	30/85	6 hrs	#	411	N/A	BLI (A5954)
Jotun Paints (Europe) Limited	Muki EPS	Ероху	1	20/80	7 hrs	7 days	609	N/A	BLI (A4527)
Sherwin Williams Protective & Marine Coatings	Macropoxy L574	Epoxy Primer	1	25/42	3 hrs	#	594	N/A	BLI (A0565f)

Manufacturer	System	Туре	No. of Coats	NDFT/NWFT Per coat (µm)		Recoat rval Max	VOC g/l	DefStan 07- 247	BR 1326
			AREA S22						
		PRIMERS FOR	NON-FERR	OUS METALS					
International (Aluminium, Stainless Steel, Zinc Spray & Galvanise)	Intergard 276	Ероху	1	30/64	6 hrs	#	411	A1	BLI, BLP (A7304)
PPG Protective & Marine Coatings	Sigmacover 400	Ероху	2	125/147	16 hrs	3 month s	106	PA	See Annex D
Sherwin Williams Protective & Marine Coatings (Aluminium, Stainless Steel & Galvanise)	Macropoxy L425	Epoxy Zinc Primer	1	35/58	5 hrs	#	346	PA	BLI (A0565g)
Sherwin Williams Protective & Marine Coatings (Zinc Spray)	Macropoxy L574	Epoxy Primer	1	25/-	4 hrs	#	594	PA	BLI (A0565f)

Manutacturer System Type		NDFT/NWFT Per coat (µm)	20°C Recoa Interval Min Ma	VOC	DefStan 07- 247	BR 1326
--------------------------	--	----------------------------	----------------------------------	-----	--------------------	------------

AREA S23 HIGH EROSION AREAS

Colour - Black

Manufacturer	System Type	No. of	NDFT/NWFT	20°C Recoat Interval		VOC	DefStan 07-	BR 1326	
			Coats	Per coat (µm)	Min	Max	g/l	247	1326
AREA S24 BENEATH TILING									
Maker Coating Systems Ltd	Corroless EPF	Ероху	2	200/-	16 hrs	2 days	20	N/A	EXT
Wessex Resins -	UW46 Primer							N/A	ΓVΤ
	UW 46 Adhesive							IN/A	EXT

Manufacturer	Manufacturer System Type No. of Coats	_	NDFT/NWFT Per coat (µm)	20°C Recoat Interval		VOC	DefStan 07- 247	BR 1326		
			Coats	rei coat (µiii)	Min	Max	g/l	241	1320	
	AREA S25									
SYSTEM FOR COATING NATURAL RUBBER MOUNTS										
(Applied by mount supplier not to be touched up once finished)										

Manufacturer	System Type	NDFT/NWFT	Por coat (um) Interval		VOC	DefStan 07- 247	BR 1326			
			Coals	Per coat (µm)	Min	Max	g/l	241	1320	
	AREA S26									
INTERNAL NUTS & BOLTS AND TO FILL GAPS BETWEEN CANNING PLATES & LEAD SHIELDING										

Manufacturer	System	Туре	No. of	NDFT/NWFT	20°C F Inte	Recoat rval	VOC	DefStan 07- 247	BR 1326
			Coats	Per coat (µm)	Min	Max	g/l		
			AREA S27						
			WATER TAN						
	1	Cold	our - Light Gr	еу	1	T		I	1
Chugoku Paints (UK) Ltd	Umeguard HS	Ероху	2	160/208	15 hrs	10 days	108	N/A	BLI (A1650)
Chugoku Famis (OK) Liu	Bannoh 1500	Epoxy Primer	2	160/219	19 hrs	30 days	286	N/A	BLI (A7302)
International	Intergard 5000	Primer	2	160/195	12 hrs	3 month s	179	N/A	BLI (A5713)
Jotun Paints (Europe) Ltd	Balloxy HB	Anti-corrosive	2	160/195	10 hrs	#	150	N/A	BLI (A1156)
Sherwin Williams Protective & Marine Coatings	Macropoxy L524	Ероху	2	160/250	12 hrs	#	296	N/A	BLI (A6839)
Sherwin Williams Protective & Marine Coatings (Repair only)	Duraplate 301W	Ероху	TBC	TBC	8 hrs	6 month s	100	N/A	BLI, LP (A8731)

Manufacturer	System	Туре	No. of Coats	NDFT/NWFT Per coat (µm)	20°C F Inte Min	Recoat rval Max	VOC g/l	DefStan 07- 247	BR 1326
AREA S28									
LILO / PAYLOAD BAY CHAMBER (Internal)									
Consult 'SDA-IS-Struc3b for latest approved coatings									

ANNEX D: PRODUCT STOCK NUMBERS (NSNs) AND BR 1326 REFERENCES

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN				
A&E GROUP									
Enviropeel E170	N/A	N/A	0	10 Kg	8030-99-598-8967				

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN				
ACOTEC									
Humidur FP	125	N/A	0	TBC	TBC				

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN			
ALOCIT								
Alocit 28.15	N/A	N/A	0	30 Kg	99-248-4702			

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN				
AQUARIUS MARINE COATINGS LTD									
CopperCoat	N/A	N/A	0	0.5 ltrs	8010-99-298-0192				
CopperCoat	N/A	N/A	0	1 ltrs	8010-99-349-7150				

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN				
ARROW CHEMICALS									
Ensign	N/A	N/A	0	TBC	TBC				

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN
		BELZONA			
Belzona 1311	N/A	N/A	0	2 Kg	99-598-6837
BELZONA 1341	N/A	BLI (A0704)	5	5 Kg	99-322-3979
Belzona 4131 Magma Screed	N/A	N/A	N/A	20 Kg	8030-99-753-8764
Belzona 4911 Magma TX Conditioner	N/A	N/A	N/A	450 g	8030-99-811-6037
Belzona 5811 Immersion Grade Beige	N/A	N/A	32	4 ltrs	8010-99-217-6523
Belzona 5811 Immersion Grade Beige	N/A	N/A	32	16 ltrs	8010-99-847-3518
Belzona 5811 Immersion Grade Grey	N/A	N/A	32	4 ltrs	8010-99-988-4411
Belzona 5811 Immersion Grade Grey	N/A	N/A	32	16 ltrs	8010-99-879-5781
Belzona 5831	N/A	N/A	0	20 ltrs	8010-99-980-0440
Belzona 9221 Surefoot Grit	N/A	N/A	N/A	2 Kg	5350-99-436-3070

Product	Ref	BR 1326	VOC g/l	Pack Size	NSN				
CACTUS INDUSTRIAL									
Kansai Sureseal 1208UWE	N/A	N/A	25	1.125 ltrs	8010-99-847-3498				

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN				
CHUGOKU PAINTS (UK) LTD									
Bannoh 1500 Grey	202a	BLI	286	20 ltrs	8010-99-594-2828				
Baillion 1300 Grey	202a	(A7302)	200	20 1015	0010-99-394-2020				
Bannoh 1500 Red Brown	202b	EXT	286	20 ltrs	8010-99-671-4223				
Bannoh 1500 White	TBC	EXT	286	TBC	8010-99-847-9236				
Bsnnoh 1500 RZ Black	024b	EXT	319	5 ltrs	8010-99-217-5165				
Bannoh 1500 RZ Black	024b	EXT	319	20 ltrs	8010-99-671-3957				
Bannoh 1500 RZ Grey	024c	EXT	319	5 ltrs	8010-99-851-0865				

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN
Bannoh 1500 RZ Grey	024c	EXT	319	20 ltrs	8010-99-476-7885
Bannoh 1500 RZ Plum	024a	EXT	319	5 ltrs	8010-99-499-0158
Bannoh 1500 RZ Plum	024a	EXT	319	20 ltrs	8010-99-993-2082
Camideck Finish Type 1 Black	203	N/A	374	20 ltrs	99-543-0790
Camideck Finish Type 1 Green	N/A	N/A	374	5 ltrs	99-543-0791
Camideck Finish Type 1 Red	N/A	N/A	374	TBC	99-543-0793
Camideck Finish Type 1 White	N/A	N/A	374	5 ltrs	99-541-9583
Camideck Finish Type 2 BS381C 640	204	N/A	374	20 Itrs	8010-99-147-1303
Camideck Repair Kit Type 1	N/A	N/A	TBC	TBC	8010-99-300-7241
Camideck Repair Kit Type 2	N/A	N/A	TBC	TBC	TBC
Cleankeep 5000	209	BLI (A1687)	0	20 ltrs	8010-99-846-9828
CMP Bioclean HB Black	210a	N/A	261	20 ltrs	8010-99-157-0240
CMP Bioclean HB Red Brown	210b	N/A	261	20 ltrs	8010-99-976-4197
CMP Bioclean Plus	095	N/A	207	TBC	TBC
CMP Bioclean R Black	211a	EXT	325	16 ltrs	8010-99-447-2539
CMP Bioclean R Red Brown	211b	EXT	325	16 ltrs	8010-99-157-0242
CMP Bioclean SG R	212	N/A	385	TBC	TBC
Epicon T-800 Grey	213b	N/A	359	20 ltrs	8010-99-846-9834
Epicon T-800 Red Brown	213a	N/A	359	20 ltrs	8010-99-753-5350
NZ Primer S Red Oxide	216	BLI (A7303)	659	20 ltrs	8010-99-595-6056
Sea Grandprix 660 HS - Black	218c	EXT	324	20 ltrs	8010-99-994-0641
Sea Grandprix 660 HS - Brown	218b	EXT	324	20 ltrs	8010-99-362-2214
Sea Grandprix 660 HS - Light Brown	218a	EXT	324	20 ltrs	8010-99-877-2315
Sea Grandprix 1000L Brown	217a	N/A	408	20 ltrs	8010-99-671-5989
Sea Grandprix 1000L Light Brown	217b	N/A	408	20 ltrs	8010-99-350-3772
Spar Varnish	N/A	N/A	433	5 ltrs	8010-99-157-1808
Spot Repair CMP NOVA 5000 Barrier	219	N/A	0	8 Kg	8030-99-847-0896
Umeguard HS Grey	220a	BLI (A1650)	158	5 ltrs	8010-99-126-9478
Umeguard HS Silver	220c	N/A	158	5 ltrs	8010-99-264-0145
Umeguard HS White	220b	N/A	158	5 ltrs	8010-99-564-2409

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN				
CORROCOAT LIMITED									
Corrocoat Zip E	N/A	N/A	TBC	5 ltrs	8010-99-258-6049				
Corrocoat Zip E	N/A	N/A	TBC	10 ltrs	8010-99-357-9661				
Corrocoat Zip E	N/A	N/A	TBC	20 ltrs	8010-99-879-5783				
Polyglass VE	N/A	N/A	TBC	10 ltrs	8010-99-217-6714				
Polyglass VE	N/A	N/A	TBC	20 ltrs	8010-99-969-5393				
Polyglass VEF	N/A	N/A	TBC	10 ltrs	8010-99-443-6326				
Polyglass VEF	N/A	N/A	TBC	20 ltrs	8010-99-472-2809				
Polyglass VE Hand Applied	N/A	N/A	TBC	5 ltrs	8010-99-887-2418				
Polyglass VE Hand Applied	N/A	N/A	TBC	10 ltrs	8010-99-157-2220				
Polyglass VE Hand Applied	N/A	N/A	TBC	20 ltrs	8010-99-616-1935				
Polyglass Zipcoat	N/A	N/A	TBC	10 ltrs	8010-99-407-7618				
Polyglass Zipcoat	N/A	N/A	TBC	20 ltrs	8010-99-753-9548				

Product	Ref	BR 1326	VOC (g/I)	Pack Size	NSN				
DURIEU S.A									
Durieu Rustol Owatrol Oil	N/A	N/A	750	20 ltrs	8030-14-605-5515				

_					April 2025	
Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN	
AF Globic 9000 78952 Black 19990	223c	PEL PAINTS L N/A	370	20 ltrs	8010-99-496-6897	
AF Globic 9000 78952 Black 19990 AF Globic 9000 78952 Brown 60600	223b	N/A N/A	370	20 ltrs	8010-99-496-6897	
		N/A	370	20 ltrs	8010-99-102-3960	
AF Globic 9000 78952 Red 51110	223a					
Galvosil 15700	222	N/A	434	20 ltrs	8010-99-593-8923	
Hempadur 15553 Grey 11320	227a	N/A	388	5 ltrs	8010-99-753-1967	
Hempadur 15553 Grey 11320	227b	N/A	388	20 ltrs	8010-99-671-3559	
Hempadur 15570 Light Grey 12430	229c	EXT	430	5 ltrs	8010-99-943-1152	
Hempadur 35560 Cream 20320	230a	N/A	0	20 ltrs	8010-22-626-9620	
Hempadur 35560 Red 50900	230b	N/A	0	19.4 ltrs	8010-99-310-1262	
Hempadur 45143 BS4800 14C39	231c	N/A	330	5 ltrs	8010-99-471-1920	
Hempadur 45143 Red 50630	231a	N/A	330	5 ltrs	8010-99-535-5832	
Hempadur 45143 White 10000	231b	N/A	330	5 ltrs	8010-99-602-7280	
Hempadur 45880 Black 19990	233	EXT	220	5 ltrs	8010-99-414-4162	
Hempadur 45880 Black 19990	233	EXT	220	20 ltrs	8010-99-350-3748	
Hempadur 45880 MIO Grey 12430	234	EXT	198	5 ltrs	8010-99-803-7233	
Hempadur 45880 MIO Grey 12430	234	EXT	198	20 ltrs	8010-99-479-5449	
Hempadur 45880 White	232	EXT	220	5 ltrs	8010-99-264-0387	
Hempadur 49183	N/A	EXT	397	TBC	TBC	
Hempadur 85671 Light Grey 11150	238a	N/A	320	20 ltrs	8010-99-980-9800	
Hempadur 85671 Light Red 50900	238b	N/A	320	20 ltrs	8010-99-864-6001	
Hempadur Multi-Strength GF 35870	2300	IN/A	320	20 103	0010-99-004-0001	
Black 19990	240a	N/A	180	18 ltrs	8010-99-671-3685	
Hempadur Multi-Strength GF 35870 Grey 11480	240b	N/A	180	18 ltrs	8010-99-861-4230	
Hempadur Quattro 17634 Red 50630	241a	N/A	276	20 ltrs	8010-33-210-7049	
Hempadur Quattro 17634 Yellow 22090	241b	N/A	276	20 ltrs	8010-33-210-7050	
Hempaguard X7 89900 Hydrogel c/w Biocides Black 19740	243a	EXT	262	20 ltrs	8010-22-635-5462	
Hempaguard X7 89900 Hydrogel c/w Biocides Red 59161	243b	EXT	262	20 ltrs	8010-33-213-1342	
Hempasil 77300	N/A	N/A	287	5 ltrs	8010-99-217-5181	
Hempasil Nexus X-Tend 27500						
Yellow 23410	246	N/A	259	20 ltrs	8010-99-850-1509	
Hempasil X3+ 87500 Hydrogel Silicone Black 19990	247b	N/A	265	20 ltrs	8010-99-269-5072	
Hempasil X3+ 87500 Hydrogel Silicone Red 59151	247a	N/A	265	20 ltrs	8010-99-846-3921	
Hempels AF Olympic +	TBC	EXT	365	TBC	TBC	
Hempels Deck Repair Kit 942 GB	N/A	N/A	N/A	2 x 1 ltrs	99-471-2960	
Hempels Marine Varnish 02220	N/A	N/A	430	5 ltrs	99-224-5783	
Hempels Nexus II 27400 Light Grey 11070	061	EXT	400	20 ltrs	8010-99-969-4772	
Hempels Non-Skid 45340 Black	N/A	N/A	347	5 ltrs	99-351-4222	
Hempels Non-Skid 45340 BS381C 632 Type 1	258	N/A	335	20 ltrs	8010-99-670-9581	
Hempels Non-Skid 45340 Type 1 Black	259	EXT	335	20 ltrs	8010-99-480-7979	
Hempels Non-Skid 45340 White	N/A	N/A	347	5 Itrs	99-323-1118	
Hempels Pro Acrylic 55883 Black	TBC	N/A	380	5 ltrs	8010-99-665-1287	
Hempels Pro Acrylic 55883 Black	TBC	N/A	380	20 ltrs	8010-99-871-7371	
Hempels Pro Acrylic 55883 BS381C 676	468b	N/A	380	5 ltrs	8010-99-296-4348	
Hempels Pro Acrylic 55883 BS381C 676	468a	N/A	380	20 ltrs	8010-99-157-4045	

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN
Hempels Pro Acrylic 55883 Pale Green	468c	N/A	380	5 ltrs	8010-99-847-8033
Hempels Pro Acrylic 55883 Pale Green	468d	N/A	380	20 ltrs	8010-99-472-3498
Hempels Pro Acrylic 55883 Pigeon Blue	468e	N/A	380	5 ltrs	8010-99-245-8686
Hempels Pro Acrylic 55883 Pigeon Blue	468f	N/A	380	20 ltrs	8010-99-217-7447
Hempels Pro Acrylic 55883 White	TBC	N/A	380	5 ltrs	8010-99-217-7751
Hempels Pro Acrylic 55883 White	TBC	N/A	380	20 ltrs	8010-99-126-7775
Hempels Zinc Primer 16490	N/A	N/A	567	TBC	8010-22-615-7231

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN			
HMG								
Architectural Polyester 827 Series	N/A	N/A	TBC	TBC	TBC			

Product	Ref	BR 1326	VOC (g/I)	Pack Size	NSN					
INDESTRUCTIBLE PAINTS										
CDCR2 Deck Coating Black	N/A	N/A	480	4 Itrs	8010-99-493-5807					
CDCR2 Deck Coating Black	N/A	N/A	480	12 ltrs	8010-99-865-8970					
CDCR2 Deck Coating Blue	N/A	N/A	480	4 Itrs	8010-99-191-1639					
CDCR2 Deck Coating Blue	N/A	N/A	480	12 ltrs	8010-99-616-2200					
CDCR2 Deck Coating CAT	N/A	N/A	TBC	1 Itrs	8010-99-847-6608					
CDCR2 Deck Coating Grey	N/A	N/A	480	4 Itrs	8010-99-959-6403					
CDCR2 Deck Coating Grey	N/A	N/A	480	12 ltrs	8010-99-403-4431					
CDCR2 Deck Coating White	N/A	N/A	480	4 Itrs	8010-99-157-3122					
CDCR2 Deck Coating White	N/A	N/A	480	12 ltrs	8010-99-918-6159					
IP3-6700 Epoxy Primer Green	N/A	N/A	350	1 ltrs	TBC					
IP3-6700 Epoxy Primer Green	N/A	N/A	350	5 ltrs	TBC					
IP3-6971 Epoxy Finish	N/A	N/A	420	1 ltrs	8010-99-436-3103					
IP3-6971 Epoxy Finish	N/A	N/A	420	5 ltrs	8010-99-868-0774					
Ipstrip 500	N/A	N/A	N/A	5 Kg	8010-99-564-1047					

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN					
INTERNATIONAL										
Interfine 629 HS Black	286a	N/A	336	5 ltrs	8010-99-375-3200					
Interfine 629 HS BS381C 225	286b	N/A	336	5 ltrs	8010-99-957-7410					
Interfine 629 HS BS381C 537	286c	N/A	336	5 ltrs	8010-99-535-9034					
Interfine 629 HS Dark Weather Work Grey	TBC	N/A	339	5 ltrs	8010-99-959-5324					
Interfine 629 HS Dark Weather Work Grey	TBC	N/A	339	20 ltrs	8010-99-258-5551					
Interfine 629 HS Dazzle Grey	TBC	N/A	339	5 ltrs	8010-99-564-1369					
Interfine 629 HS Dazzle Grey	TBC	N/A	339	20 ltrs	8010-99-564-1371					
Interfine 629 HS Light Weather Work Grey	286d	N/A	339	5 ltrs	8010-99-920-5440					
Interfine 629 HS Light Weather Work Grey	TBC	N/A	339	20 ltrs	8010-99-156-9062					
Interfine 629 HS Medium Sea Grey	TBC	N/A	339	5 ltrs	8010-99-380-1890					
Interfine 629 HS Medium Sea Grey	TBC	N/A	339	20 ltrs	8010-99-940-7153					
Intergard 263 Tie Coat Light Grey	290a	N/A	379	20 ltrs	8010-99-133-3854					
Intergard 269 Protective Primer	291a	BLI (A5954)	411	20 ltrs	8010-99-983-0743					
Intergard 276 Grey	292a	BLI, BLP (A7304)	411	20 ltrs	8010-66-158-8437					

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN
Intergard 276 White	292b	BLI, BLP	411	20 ltrs	8010-99-564-0695
		(A7304)			0010-99-304-0093
Intergard 740 Black	N/A	N/A	420	5 ltrs	99-488-7443
Intergard 740 Black ECY999/A	294a	N/A	420	20 ltrs	8010-99-285-3824
Intergard 740 BS381C 640	294b	N/A	420	5 ltrs	8010-99-182-2627
Intergard 740 Green	N/A	N/A	420	20 ltrs	99-262-7677
Intergard 740 Red Oxide	N/A	N/A	420	5 ltrs	99-377-5457
Intergard 740 Signal Red	N/A	N/A	420	20 ltrs	8010-99-277-2965
Intergard 740 White	N/A	N/A	420	5 ltrs	99-773-8674
Intergard 740 Yellow	N/A	N/A	420	5 ltrs	99-969-1037
Intergard 1735 Light Grey	289	BCI (A4417)	132	5 ltrs	8010-99-615-7042
Intergard 1735 WB BS381C 640	297	BCI (A7275)	132	5 ltrs	8010-99-702-0607
Intergard 1735 WB BS4800 00A01	289a	N/A	132	5 ltrs	8010-99-255-0527
Intergard 1735 WB BS4800 14C39	289b	N/A	132	5 ltrs	8010-99-483-1994
Integrard 1735 White	289	BCI (A4417)	132	TBC	TBC
Intergard 5000 Aluminium	293e	N/A	220	20 ltrs	8010-99-846-1310
Intergard 5000 Black	293a	BLI, NF (A8103)	179	20 ltrs	8010-99-345-8079
Intergard 5000 BS4800 00A01	293b	BLI (A5713)	179	5 Itrs	8010-99-000-5256
Intergard 5000 Buff	293c	N/A	179	20 ltrs	8010-99-156-8012
Intergard 5000 Green	293f	BLI (A5713)	179	5 Itrs	8010-99-555-1384
Intergard 5000 White	293d	BLI (A5713)	179	20 ltrs	8010-99-366-6762
Interlac 678	N/A	N/A	373	5 Itrs	99-328-9646
Interfine 878	N/A	N/A	246	TBC	TBC
Interfine 979	N/A	N/A	165	TBC	TBC
Interline 704	299	N/A	385	20 ltrs	8010-99-555-6072
Interline 850 Grey	300b	N/A	212	20 ltrs	8010-99-690-8481
Interline 850 White	300a	N/A	212	20 ltrs	8010-99-669-8513
Interline 925	301	BLI (A2236)	1	20 ltrs	8010-99-131-8010
Interline 925 Cream	302	BLI (A2236)	1	20 ltrs	8010-99-216-8379
Interline 994 Buff	303c	N/A	290	5 Itrs	8010-99-379-1407
Interline 994 Buff	303d	N/A	290	20 ltrs	8010-99-391-4659
Interline 994 Grey	303a	N/A	290	5 ltrs	8010-99-258-5403
Interline 994 Grey	303b	N/A	290	20 ltrs	8010-99-238-9885
Interplus 4101 Yellow	N/A	N/A	N/A	25 ltrs	8030-99-846-2819
Interplus 4103 Yellow	N/A	N/A	N/A	25 ltrs	8030-99-369-2168
Interpon D1036 Satin (70)	N/A	N/A	TBC	TBC	TBC
Interpon Redux Plus AL258F	N/A	N/A	TBC	TBC	TBC
Intershield 300	306	EXT	386	10 ltrs	8010-99-151-9594
Intershield 851 Black	307a	N/A	169	TBC	TBC
Intershield 851 BS381C 640	307b	N/A	169	20 ltrs	8010-99-391-0953
Intershield 852 Black	308a	N/A	134	5 ltrs	8010-99-250-1864
Intershield 852 BS381C 632	308b	N/A	134	5 ltrs	8010-99-149-8996
Intershield 852 BS381C 640	308c	N/A	134	5 ltrs	8010-99-583-1344
Intershield 852 Green	308e	N/A	134	5 ltrs	8010-99-871-6360
Intershield 852 Red	308f	N/A	134	5 ltrs	8010-99-666-9269
Intershield 852 White	308g	N/A	134	5 ltrs	8010-99-968-9269
Intersleek 737 Grey Intersleek 737 Pink	312 312	EXT EXT	325 325	10 ltrs	8010-99-396-1959 8010-99-918-1064
	2117				

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN
Intersleek 1100SR Black	309	EXT	248	10 ltrs	8010-99-615-7741
Intersleek 1100SR Red	310	EXT	248	10 ltrs	8010-99-841-5218
Intersleek 7180 Red Brown	N/A	N/A	377	20 ltrs	99-593-3810
Intersmooth 7460 Red	313	N/A	425	20 ltrs	8010-99-216-8317
Interspeed 6400	316	EXT	358	20 ltrs	8010-33-209-1579
Intertherm 50 Aluminium	318	BLI (A3501)	495	6 ltrs	8010-99-969-0549
Intertherm 891 Aluminium	N/A	N/A	425	5 Itrs	8010-99-988-8802
Intertherm 891 Aluminium	N/A	N/A	425	20 ltrs	8010-99-753-8906
Interzinc 22 Greenish Grey	N/A	BLI (A8849)	470	14 ltrs	99-927-5431
Interzinc 72 Blue	N/A	N/A	410	10 ltrs	8010-99-981-4272
Interzinc 72 Grey	N/A	N/A	410	10 ltrs	8010-99-993-5751
Interzone 101 Green	N/A	N/A	0	12 ltrs	99-915-9726

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN				
JOTUN PAINTS (EUROPE) LTD									
Balloxy HB Light Green	320a	BLI (A1156)	150	18 ltrs	8010-17-108-7825				
Hardtop CA BS381C 676	321a	N/A	340	5 ltrs	8010-99-846-3401				
Hardtop CA BS381C 676	321b	N/A	340	20 ltrs	8010-99-368-1686				
Hardtop CA BS4800 00A01	321c	N/A	340	5 ltrs	8010-99-577-8447				
Hardtop CA BS4800 00A01	321d	N/A	340	TBC	TBC				
Hardtop Optima BS381C 676	322a	N/A	215	5 ltrs	8010-99-992-1998				
Hardtop Optima BS381C 676	322b	N/A	215	20 ltrs	8010-99-436-0000				
Jotacote Universal N10 Red	003a	N/A	239	20 ltrs	8010-99-754-5667				
Jotacote Universal N10 Grey	003b	N/A	239	20 ltrs	8010-99-407-9318				
Jotacote Universal N10 White	003c	N/A	239	20 ltrs	8010-99-616-2454				
Jotamastic 80 Aluminium Red Tone	327b	N/A	145	5 Itrs	8010-99-226-7124				
Jotamastic 80 Aluminium Red Tone	327a	N/A	145	20 ltrs	8010-99-235-5945				
Marathon IQ 2	146	N/A	42	TBC	TBC				
Muki EPS Red	332a	BLI (A4527)	610	18.5 ltrs	8010-99-564-0809				
Safeguard Universal ES Plum	336	N/A	330	18 ltrs	8010-99-671-3575				
Seaquantum Classic S Dark Red	340	N/A	460	20 ltrs	8010-99-156-7984				
Seaquantum Ultra S Dark Red	342	N/A	460	20 ltrs	8010-99-690-8855				
Seaquest Red	343	N/A	247	18.45 ltrs	8010-99-937-0885				
Spontan Varnish	N/A	N/A	470	5 ltrs	99-161-6220				
Tankguard DW Light Grey	345a	N/A	2	15 ltrs	8010-99-241-9602				
Tankguard DW White	345c	N/A	2	15 ltrs	8010-99-846-3419				
Tankguard Storage Light Grey	348	N/A	310	18.8 ltrs	8010-99-156-7988				
Tankguard Storage Light Red	349	N/A	310	18.8 ltrs	8010-99-359-5632				
Tankguard Storage Red	350	N/A	310	18.8 ltrs	8010-99-959-5076				

Product	Ref	BR 1326	VOC (g/I)	Pack Size	NSN			
MAKER COATING SYSTEMS LTD								
Biofix 561 Lt Black	N/A	N/A	0	7.5 ltrs	99-133-9985			
Corroless CCI 355	374	N/A	N/A	20 Kg	9150-99-676-5736			
Corroless EPF Black	376	EXT	80	5 ltrs	8010-99-212-7555			
Corroless EPF Buff	375	N/A	80	5 ltrs	8010-25-150-0972			
Corroless EPF Silver grey	375	BLI (A8430)	80	TBC	TBC			
Corroless RF35 Grey	378b	N/A	93	5 ltrs	8010-99-337-0778			
Corroless RF35 White	378c	N/A	93	5 ltrs	8010-25-150-0973			
Zinga	N/A	N/A	537	5 Kg	99-884-0220			

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN				
N A ROBSON									
Back To Nature VIII	N/A	N/A	N/A	N/A	99-361-6273				

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN			
PARKER CHOMERICS								
Cho-Shield 610	N/A	N/A	591	7 ltrs	5999-01-703-3871			

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN		
PERFORMANCE POLYMER GROUP							
Thermaguard CUI 650	N/A	BLI, BLP, E (A8287)	342	TBC	TBC		

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN
	PPG PROTECT	IVE & MARINI	COATINGS		
91-92 Thinner (for Phenguard 965)	TBC	BLI (A4904)	TBC	5 ltrs	8010-17-054-9628
Envirocron PCS P4 Series	N/A	N/A	TBC	TBC	TBC
Phenguard 965 Grey	053	BLI (A7390)	329	20 ltrs	8010-99-671-3967
Phenguard 965 Off-White	TBC	BLI (A7390)	329	20 ltrs	8010-99-671-6996
Phenguard 965 Pink	TBC	BLI (A7390)	329	20 ltrs	8010-99-371-3796
PSX 700 BS4800 14C39	368	N/A	164	5 ltrs	8010-17-113-6169
PSX 700 White	369	N/A	164	5 ltrs	8010-17-113-5689
Sigmacover 280 LT 7417 Yellow	404	N/A	432	20 ltrs	8010-99-569-7697
Sigmacover 400 Black	419a	BLI (A6852)	106	20 ltrs	8010-99-507-5313
Sigmacover 400 Blue	419d	N/A	106	20 ltrs	8010-99-157-1462
Sigmacover 400 Bright Yellow	419e	N/A	106	20 ltrs	8010-99-671-6874
Sigmacover 400 Brunswick Green	419f	BLI (A6854)	106	20 ltrs	8010-99-157-1463
Sigmacover 400 Grey	419c	N/A	106	20 ltrs	8010-99-156-8080
Sigmacover 400 Red	419g	N/A	106	20 ltrs	8010-99-847-2868
Sigmacover 400 Steel	419h	N/A	106	20 ltrs	8010-99-320-1413
Sigmacover 400 Storm	419i	N/A	106	20 ltrs	8010-99-564-3846
Sigmacover 400 White	419b	N/A	106	20 ltrs	8010-99-156-8092
Sigmacover 555	138	N/A	387	TBC	TBC
Sigmadur 540 BS381C 676	423a	N/A	411	20 ltrs	8010-99-671-3651
Sigmadur 540 Extra Dark Sea Grey	423b	N/A	411	20 ltrs	8010-99-846-3541
Sigma Ecofleet 530 Black	412	EXT	339	20 ltrs	8010-99-375-0408
Sigma Ecofleet 530 Brown	413	EXT	339	20 ltrs	8010-99-996-2266
Sigma Ecofleet 530 Red Brown	414	EXT	339	20 ltrs	8010-99-153-6929
Sigmaglide 790	405	EXT	187	20 ltrs	8010-99-406-0976
Sigmaglide 1290 Black	424	EXT	118	TBC	8010-99-217-0543
Sigmaguard CSF 585 Blue	428	N/A	6	20 ltrs	8010-17-120-3206
Sigmaguard CSF 650 Grey	429a	N/A	143	20 ltrs	8010-99-489-1723
Sigmaguard CSF 650 White	429b	N/A	143	20 ltrs	8010-99-376-9810
Sigmaguard CSF 650 Red Brown	429c	N/A	143	20 ltrs	8010-99-902-6226
Sigmaprime 700	N/A	EXT	313	TBC	TBC
Sigmarine 42	N/A	N/A	393	1 ltr	8010-99-364-1912
Sigmarine 42	N/A	N/A	393	5 ltrs	8010-99-157-1792
Sigmashield 880 Black	396	N/A	207	20 ltrs	8010-99-871-5235
Sigmashield 1200	147	N/A	143	TBC	TBC
Sigmatherm 500	N/A	N/A	600	5 ltrs	8010-99-858-6097
Sigmatherm 500	N/A	N/A	600	20 ltrs	8010-99-371-3802
Sigmazinc 19	N/A	N/A	584	2 ltrs	99-152-6131

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN
T-Phos 53 Pre-treatment	N/A	N/A	TBC	TBC	TBC

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN
	N-WILLIAMS PR				NON
Acrolon 1850 White	81	N/A	345	5 ltrs	8010-99-217-7329
Duraplate 301W Grey	66	BLI, LP (A8731)	100	4 ltrs	8010-99-157-4065
Duraplate 301W Grey	66	BLI, LP (A8731)	100	16 ltrs	8010-99-355-5806
Duraplate 301W White	66	BLI, LP (A8731)	100	4 ltrs	8010-99-362-2298
Duraplate 301W White	66	BLI, LP (A8731)	100	16 ltrs	8010-99-707-4234
Epidek M339	434	N/A	250	2 ltrs	8010-99-383-4334
Epidek M339 Extra Dark Sea Grey	434a	N/A	250	20 ltrs	8010-99-215-4495
Epidek M377 BS381C 632	435	N/A	330	4 ltrs	8010-99-777-8689
Epidek M377 Green	N/A	N/A	330	4 ltrs	99-777-8691
Epidek M377 Non-Skid Type 1 Black	436	N/A	330	4 ltrs	8010-99-777-8692
Epidek M377 White	N/A	N/A	330	4 ltrs	99-777-8690
Kem-Kromik 155	N/A	N/A	410	5 ltrs	8010-99-753-8892
Kem-Kromik 155	N/A	N/A	410	20 ltrs	8010-99-184-8658
Kem-Kromik A165 Silicone Alkyd BS381C 676	438	N/A	407	5 ltrs	8010-99-982-2604
Macropoxy C425V2 Light Grey	440	BLI (A6836)	186	5 ltrs	8010-99-786-7949
Macropoxy C425V2 Light Grey	440	BLI (A6836)	186	20 ltrs	8010-99-126-6377
Macropoxy C425V2 Off White	441	BLI (A6837)	186	20 ltrs	8010-99-133-8714
Macropoxy L425	444	BLI (A0565g)	346	5 ltrs	8010-99-777-8688
Macropoxy L524 Grey	446	BLI (A6839)	296	TBC	TBC
Macropoxy L524 White	446	N/A	296	4 ltrs	8010-99-564-2934
Macropoxy L574	447	BLI (A0565f)	594	20 ltrs	8010-99-895-9894
Macropoxy M111 Red Oxide	448	BLI (A0662)	383	5 ltrs	8010-99-884-5957
Macropoxy M262	450	N/A	354	5 ltrs	8010-99-133-8713
Macropoxy M630V2 Black	452	N/A	0	5 ltrs	8010-99-739-8402
Macropoxy M630V2 BS381C 676	453a	BLI (A6833)	0	5 ltrs	8010-99-131-6908
Macropoxy M630V2 BS4800 00A01	454	BLI (A6833)	0	5 ltrs	8010-99-535-5105
Macropoxy M630V2 BS4800 14C39	453	N/A	0	5 ltrs	8010-99-255-5237
Macropoxy M630V2 Dark Admiralty Grey	TBC	N/A	0	20 ltrs	99-868-4125
Macropoxy M630V2 Fathom Blue	TBC	N/A	0	20 ltrs	99-753-8430
Macropoxy M630V2 Holly Green	TBC	N/A	0	20 ltrs	99-671-6651
Macropoxy M630V2 White	TBC	BLI (A6830)	0	TBC	TBC
Macropoxy M922M Mastic Aluminium	457	EXT	146	4 ltrs	8010-99-495-3873
Macropoxy M922 White	456	N/A	143	TBC	TBC
Mordant Wash L703	N/A	N/A	307	5 ltrs	6810-99-861-9824
Sher-Cryl M770	N/A	N/A	78	TBC	TBC
Sherwin M671 Medium Grey	463	N/A	380	5 ltrs	8010-99-872-1746

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN
Sherwin M671 Medium Grey	463	N/A	380	20 ltrs	8010-99-862-7354

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN			
SPI Performance Coatings Ltd								
Staingard PF	152	N/A	0	TBC	TBC			

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN			
Subsea Industries								
Ecoshield	149	N/A	240	TBC	TBC			

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN				
TRIMITE									
P9201	N/A	N/A	TBC	TBC	TBC				
S59 Topcoat	N/A	BLI, NF (A2009)	580	5 ltrs	8010-99-564-4008				
Sp59 Primer	N/A	N/A	TBC	5 ltrs	8010-99-378-5631				
Trimite D00294 Matt NATO Green	N/A	N/A	538	5 ltrs	8010-99-959-6392				
Trimite D00341 Matt Black	N/A	N/A	538	5 ltrs	8010-99-354-1492				
Trimite D00347 Matt Light Stone	N/A	N/A	538	5 ltrs	8010-99-671-8238				
Trimite D00355 Matt Grey Beige Ral	N/A	N/A	538	5 ltrs	8010-99-994-0685				
Trimite D00357 Matt Tan	N/A	N/A	538	5 ltrs	8010-99-226-7983				
Trimite D00371 Matt Yellow Olive	N/A	N/A	538	5 ltrs	8010-99-870-3865				
Trimite D00386 Matt UK Army Brown	N/A	N/A	538	5 ltrs	8010-99-157-3098				
Trimite D00387 Matt Brown	N/A	N/A	538	5 ltrs	8010-99-579-8491				
Trimite D00389 Matt DK Sandstone Camo	N/A	N/A	538	5 ltrs	8010-99-894-2220				

Product	Ref	BR 1326	VOC (g/l)	Pack Size	NSN	
WESSEX RESINS						
UW 46 Adhesive	N/A	EXT	TBC	150 Kg	8040-99-297-7593	
UW46 Primer	N/A	EXT	TBC	3 Kg	8040-99-593-3008	

ANNEX E: NAVAL SHIPS SUPPORT PAINT TABLE

1. The Tables previously displayed in this Annex have now been removed. Individual Carry Onboard Allowances (CALs) are being produced to support platforms with the understand and ordering of the systems used onboard.

ANNEX F: WARPAINT APPROVAL Form

Warpaint Approval Request Form

Date of Request:	(dd/mm/yyyy)
Manufacturer:	(Name)
Point of Contact:	(Name and Email Address)
Product Name:	(Name and any Identifiers)
New Product:	(If the product is new, please outline why it should be assessed and confirm if it forms part of a system)
Replacement	(If the product is meant to replace one currently in Warpaint please give details of said
Product:	product)
Type of Paint:	(Epoxy, Primer ETC)

Documentation Required for Submission	(√)
Technical Data Sheet / Product Data Sheet (TDS/PDS)	
Safety Data Sheet / Material Safety Data Sheet (SDS/MSDS)	
Application guide	
Submission Form	

(Is there any additional information that you would like to provide to support this submission?)

Areas for Use (Please Highlight/Circle the areas that the product is intended for use in)						
Specialist Area (ANNEX A)	Ships (ANNEX B)	Submarines (ANNEX C)				
A1 - Antifouling for "Archer" class & Yachts	A&B - BELOW WATER HULL PRIMER	S1 - PRESSURE HULL & SUPERSTRUCTURE PRIMER				
A2 - Rudder, Stabilisers & "A" Frames (Corrosion and Erosion)	C - ANTIFOULING FINISH (Self Polishing – SPC)	S2a - ANTIFOULING SYSTEM(S) / FOUL RELEASE / DEFENCE (FRC / FD)				
A3 - Rudder, Stabilisers & "A"	D - ANTIFOULING SYSTEM (Foul Release -	S2b – ANTIFOULING SYSTEM(S) SELF				
Frames (Cavitation Protection) A4 - Hull (Underwater-applied	FRC 5+ yr life) F - BOOTTOP ANTIFOULING FINISH (SPC)	POLISHING (SPC) S3 - PRESSURE HULL & EXTERNAL				
coatings) General Repair	<u> </u>	SUPERSTRUCTURE FINISH				
A5 - Hull – Link Coats for Foul Release Paint	G&H - ABOVE WATER HULL & SUPERSTRUCTURE & PRIMER	S4 - PERISCOPES & MASTS				
A6 - HPSW Internal Coating for Intake Pipework	J - ABOVE WATER HULL & SUPERSTRUCTURE FINISH	S5 - SUPERSTRUCTURE CASING				
A7 - Peelable Corrosion-Inhibiting Encapsulating Membrane	K - FLIGHT & WEATHERDECK SYSTEMS – DEF STAN 80-134	S6 - WALKWAYS ON CASING				
A8 - Seawater Ballast Tank Spot Repair	L&M - INTERIOR DRY COMPARTMENTS	S7 - INTERNAL DRY SPACES				
A9 - Flight Deck / Deck Markings	N&O - INTERIOR WET COMPARTMENTS	S8 - INTERIOR WET COMPARTMENTS				
A10 - LCU & LVCP – CARC & IRR A/W Hull Finish	P - INTERIOR DECKS	S9 - GROUP EXHAUST VALVES				
A11 - Navigation Light Enclosures	Q - BATTERY COMPARTMENTS	S10 - DSRV SEATING				
A12 - Instruments & Electronic Equipment Panels	R - CABLE LOCKERS & COFFERDAMS	S11 - INTERIOR PRESSURE HULL SURFACE				
A13 - Galvanised Steel & Zinc Metal Sprayer (Repair)	S - BLACK/GREY & WATER BALLAST TANKS IMO PSPC	S12 - REACTOR COMPARTMENT				
A14 - Woodwork (High Gloss, Clear, Protective Finish)	T - MACHINERY SPACE BILGES	S13 - INTERIOR DECKS				
A15 - Corrosion Inhibitor Grease	U - AVCAT, DIESO, LUB & HYDRAULIC OIL TANKS SYSTEM DEF STAN 80-97 (HIGH SOLIDS)	S14 - BATTERY COMPARTMENTS				
A16 - Conductive Glands	V - POTABLE WATER TANKS	S15 - MACHINERY SPACE BILGES & MOUNTED MACHINERY RAFTS				
A17 - Heat Resistant Coatings (Below 175°C)	W - AQUEOUS FILM-FORMING FOAM (AFFF) TANKS	S16 - BULK FUEL & OIL, LUBE OIL, HYDRAULIC & LP AIR TANKS				
A18 - Heat Resistant Coatings (Above 250°C)	X - DEMINERALISED WATER TANKS (Max Temperature 90°C)	S17 - POTABLE WATER TANKS				
A19 - Heat Resistant Coatings (Above 400°C)	Y - EPOXY HOLDING PRIMER	S18 - SLOP DRAIN TANKS				
A20 - System for Coating Natural Rubber Mounts	Z - PRIMERS FOR NON-FERROUS METALS & FRP	S19 - AFFF TANKS				
A21 - Paint Remover		S20 - DEMINERALISED WATER TANKS (Max Temperature 90°C)				
A22 - Rust Stain Remover		S21 - HOLDING PRIMER (blasted steel work)				
A23 - SMTDUNIQUE Immersed Areas – Pumps ETC		S22 - PRIMERS FOR NON-FERROUS METALS				
A24 - Mordant Reagent		S23 - HIGH EROSION AREAS				
A25 - Cleaning Detergent		S24 - BENEATH TILING				
A26 - Damp Surface Primer		S26 - INTERNAL NUTS & BOLTS AND TO FILL GAPS BETWEEN CANNING PLATES & LEAD SHIELDING				
A27 - Hangar Doors Finish		S27 - SEA WATER TANKS				
A28 – Rust Inhibitor		S28 - LILO / PAYLOAD BAY CHAMBER (Internal)				
A29 – External Deck Brow Positions for MCM						
A30 – Powder Coating (Internal)						
A31 – Powder Coatings (External)						
A32 – Air Craft Carrier Metal Sprayed Landing Spot Sealant						
A33 – Dazzle Paint Scheme for OPV Batch 1						
A34 – Dazzle Paint Scheme for OPV Batch 2						

END OF DOCUMENT