



SeaCoat
TECHNOLOGY, LLC

APPLICATION GUIDELINE FOR

Company Name

M/V

SEA-Speed®DTM V4

(Hard film fluorinated siloxane foul release coating)

SCOPE

This specification, together with the Product Data Sheet, defines the minimum requirements for the Maintenance and the pre-treatment, abrasive blasting, application, and inspection of an exterior underwater hull surface with a **SEA-Speed V4** coating or a combined **Amercoat 240 / SEA-Speed V4** coating system.

Inspectors from PPG and SeaCoat TECHNOLOGY, LLC will be in full-time supervision of this work.

STANDARDS

Swedish and Steel Structures Painting Council (SSPC)

- SP-1 Solvent Cleaning
- SP-3 Power Tool Cleaning
- SA-2** or SP-6 Commercial Blast
- SA-3** or SP-5 White Metal
- SA-1** or SP-7 Brush Blast
- SA-2½** or SP-10 Near White Metal Blast Cleaning
- SP-11 Power Tool Cleaning to Bare Metal
- PA-1 Shop, Field and Maintenance Painting
- PA-2 Measurement of Dry Paint Thickness with Magnetic or Electronic Gauges
- PA-3 A Guide to Safety in Paint Application

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PREPARATION

Surface Preparation for all Immersed Surfaces

1. High pressure (3000 psi) wash the topside and freeboard for removal of any oils and salts. **(NOT REQUIRED FOR NEW BUILDING)**
2. **STEEL HULL:** High pressure wash (5000 psi minimum (340 bar)) the hull from the boottop to keel to remove all marine growth, loose and poorly adhered antifouling paint. **(NOT REQUIRED FOR NEW BUILDING)**
3. Allow the surface to dry adequately. **(NOT REQUIRED FOR NEW BUILDING)**
4. Abrasive blast the necessary areas of the hull up to with an adequate abrasive in order to produce a minimum SA 2 ½ anchor profile of 2.5 mils. **IF GRIT BLASTING IS NOT AVAILABLE A UHP WJ-2 PREPARATION IS ADEQUATE. Contact SCT Technical for consultation.**
5. Remove any residual blast contaminants from the blasted areas with compressed air.

Special Areas

All welded areas and appurtenances shall be given special attention for removal of welding flux in crevices. Weld splatter, slivers, and surface laminations exposed during surface preparation cleaning, shall be removed by grinding.

Blast Surface Protection

- 1.**Steel:** All steel surfaces shall be coated during the same day they are blasted and coated prior to sundown of that day, before any rusting occurs.
- 2.**Aluminum and Non-Metallic:** Aluminum and non-metallic surfaces do not have to be coated the same day; however, all surfaces not coated the same day must be washed to be free of salt, dirt, oil and grease.

COATING SYSTEM HULL:

Blasted areas:

ANTI CORROSIVE PRIMER (AMERCOAT 240):

Amercoat 240 will be applied in two coats in order to facilitate coating:

The Amercoat is supplied in two alternating colors; Red oxide and haze grey.

- 1) Upon completion of grit blasting to the specified profile and compressed air cleaning of the hull and acceptance by inspectors; Apply one coat of Amercoat 240 Red oxide at 6 mils (150 microns) wet film thickness as a holding primer. This will equate to 5 mils (125 microns) DFT. Once the entire underwater hull has been blasted and the holding primer applied per the following time schedule:

Recoat window: Min 5 Hrs. / Max. 90 days (at 25 C/ 77F)

- 2) Apply the second coat of Amercoat 240 haze grey at 6 mils (150 microns) wet film thickness in order to achieve a total dry film thickness of 10 mils (250 microns).

For best adhesion for the **SEA-Speed V4** as applied over the Amercoat 240, the second coat of Amercoat 240 should be allowed to cure to "TACK FREE" firm thumbprint stage. Estimated recoat window for application of SEA-SPEED V4 over the Amercoat 240 is 5 - 8 hours at 77 F (25C). Note that if recoat times are exceeded a tie coat of Amercoat 240 may be required at 3 mils (75 microns) DFT prior to applying SEA-SPEED V4.

TOPCOAT (*SEA-Speed V4*):

Apply one coat of **SEA-Speed V4**@ 9 mils (225 μ) minimum wet film thickness up to 10 mils (250 microns) wet film thickness.



Apply the SEA-SPEED 12” – 18” from the surface at right angles to the surface. Applicator shall cross hatch while applying to achieve the following wet film thicknesses. Special precautions shall be taken to prevent runs or sags.

NEW BUILDING:

Once blocks are painted and assembled, joint areas can be painted as follows:

Junctions, burned areas, block areas to be grit blasted to SA 2.5

- 1) The new SEA-SPEED surrounding the junctions, burned areas and blocks to be sanded using 80 grit to a distance of 1.5 feet (30 Centimeters) to the point where it is dull.
- 2) The sanded areas shall be blown off using dry oil free compressed air.
- 3) The Sanded SEA-SPEED areas shall be wiped down with either MEK (Methyl Ethyl Ketone) or Isopropyl Alcohol (Rubbing Alcohol).
- 4) Apply the AC primer (Amercoat 240) as per above to the bare steel only. Do not apply primer over surrounding SEA-SPEED.
- 5) Once the AC primer is sufficiently cured a coat of SEA-SPEED may be applied by spray according to the specified interval.

Mixing and Application of Amercoat 240 and *SEA-Speed™ V4*

Mix all coating materials in accordance with Ameron and or SeaCoat Technology, LLC Product Data Sheets and application instructions.

AMERCOAT 240:

1. Amercoat 240 is supplied in a two component package (4parts resin/1 part cure). Add cure to resin and mix with an explosion proof mixer. Mix thoroughly. Thinner may be added up to 10 % by volume (189 milliliters/6.4 ounces per mixed kit) maximum.
2. Allow 15 minutes induction time prior to commencing application.
3. Tip size shall be 0.021 – 0.025 inch.

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SEA-SPEED V4:

1. SEA-SPEED is provided in five gallon pails. It is supplied as 1:1 mixture by volume. Black pails contain 2.5 gallons of PART A (activator) color code (Customer choice). Grey pails contain 2.5 gallons of PART B (resin). Premix PART B and add to PART A. Mix thoroughly with a power mixer until color is fully homogeneous. No induction time is required
2. Flush all spray equipment thoroughly between products with Ameron T 10 epoxy thinner to ensure no cross contamination.
3. Spray apply with airless equipment; for best results, a 63:1 ratio airless or larger shall be used. Ideal is a 68:1 ratio pump. Spray tip shall be 0.019 – 0.023
4. Draft marks and markings: white SEA-SPEED has been provided. Mix appropriate quantities on a 1:1 by volume ratio. Draft and other markings may be applied via brush.

Do not thin material. Use Ameron T 10 solvent or other approved Epoxy thinner for cleaning only. DO NOT USE XYLENE.

COATING SYSTEM PROPELLER:

Propeller Painting – *SEA-Speed™* - 95.92 Sq Mtrs (1000 sq. ft.) , 5 blades

Propeller to be blasted & coated in-place, after finalizing of all work which may damage the paint.

Special attention shall be given to surface preparation and paint application at tips and leading edges.

Inspectors from SeaCoat TECHNOLOGY, LLC will be in full-time supervision of this work.

1. Stage the propeller to provide a direct angle for blast-nozzles to all blade surfaces, leading edges and tips.
2. Surface Preparation:



- High pressure water wash entire propeller minimum 3,000 PSI
 - Grit blast entire propeller using # 60 mesh size Garnet (do not use copper slag) to produce a 2.5 profile.
 - Chemical clean entire propeller using Holdtight 102 (To be supplied by Seacoat)
 1. Apply a 2% solution of holdtight 102 and fresh water using an airless spray pump (30:1 ratio) and allow a dwell time of 30 minutes minimum.
 2. Flush the airless sprayer with clean water.
 3. Using moisture and oil free compressed air, the propeller shall be dried.
3. Application of BG 251 Primer and SEA-SPEED:
- One full coat Epoxy primer, BG 251 White or haze grey at 8 mils (200 microns)WFT. BG 251 to be supplied by Seacoat.
 - Allow 3-5 hours to achieve “TACK FREE” firm to finger pressure stage.
 - One full coat **SEA-Speed V4** (Blue) at 10 mils (250 microns) WFT.

CURE TIME TO RE-FLOAT: 16 hours at 77 degrees F Minimum or until approved by Seacoat inspectors.

INSPECTION AND SAFETY

Inspection

1. In order to insure that a proper dry film thickness is achieved, wet film thickness readings must be taken continuously during application.
2. All DFT measurements and their locations shall be in accordance with SSPC PA-2, paragraphs 1-5, and documented for record by yard QC personnel.
Substrate temperature must be above 50° F (10° C) and at a minimum must be 5° F (3° C) above the Dew Point.
3. Vessel may be placed into the water in twenty four hours or as soon as the coating system has achieved a hardness that is not easily mechanically damaged.
4. ***For each 10° F under 77° F (6.25° C under 25° C) add 6 hrs to re-float time.***

Safety

Proper attire, such as air masks and goggles must be worn during application. Avoid ingesting coating through the nose or mouth. Refer to MSDS sheets for industrial safety and hygiene procedures. Safety precautions and procedures shall be in strict compliance with SSPC PA-3 paragraphs 1-16