Apexior® Number 3C
Single Component Air Dry Coating
Immersion in Fresh/Salt Water

Description
Apexior Number 3C is a VOC compliant, single component, easy to apply air dry coating specifically formulated for the waterside corrosion prevention of metal surfaces. It has outstanding wetting properties and adheres well to power tooled cleaned areas. Apexior Number 3C is resistant to continuous immersion in fresh or salt water as well as frequently wet or high humidity environments. Apexior Number 3C prevents pitting corrosion and stops corrosion which has already begun except for badly pitted areas. It aids in the reduction and prevention of tight bonding of hard scale and allows for easy cleaning and removal of scale buildup. Apexior Number 3C performs ideally with water treatment.

Recommended Uses
Apexior Number 3C protects the water-side surfaces of:
- Chillers
- Sea valves
- Cold water storage tanks
- Condenser heads and shells
- Inside shell of AC units
- Pump casings on fresh/salt water intakes
- Inner housings of pumps
- Sump pump pits and chain lockers
- Bilge and forepeak tanks
- Ballast and brine tanks

Features
- VOC Compliant 2.8 lb./gal. (335.5 g./l.)
- Air dries, easy to apply
- Excellent wettability properties
- Resistant to fresh/salt water
- Easily re-coatable
- Surface tolerant features
- Inert to water treatment
- Prevents scale buildup

Not Recommended For
- Immersion in solvents or acids
- Water immersion service above 140°F (60°C)
- Potable water storage tanks

Surface Preparation - Carbon Steel
1. To ensure optimum long-term coating system performance, surfaces must be clean, dry, and free from dirt, oil, grease, salts, welding flux, mill scale, rust, oxides, old paint, corrosion products, visible and non-visible contaminants, or other foreign matter.
2. Remove all surface imperfections that will induce premature coating system failure. Chip or scrape off weld splatter. Grind down sharp and rough welds, edges, gouges, slivers, and pits in accordance to NACE SPO178.
3. Abrasive blast surface per specification SSPC-SP-10, (Near-White Metal Blast Cleaning), or per NACE Standard No. 2 to a profile depth of 1.5 - 2.0 mils (38-50µm). Abrasive used in blasting should be selected carefully from materials of mesh type and size required to produce the desired sharp anchor pattern.
4. If abrasive blasting is not permitted, prepare surface by power tool cleaning per SSPC-SP-11 (Power-Tool Cleaning to Bare Metal). Use an MBX Bristle Blaster or other types of power-tools to attain a sharp angular surface profile of 1.5 - 2.0 mils (38 - 50 µm).
5. ***Note:*** Non-ferrous metals should be prepared in accordance to SSPC-SP-1 (Solvent Cleaning) with non-chlorinated solvents followed by preparation in accordance to SSPC-SP-16 or NACE 4 using non-metallic abrasives. A sharp angular surface profile depth of 1.5 - 2.0 mils (38 – 50 µm). Consult Dampney Technical Service to determine the appropriate surface profile depth that is needed for the specific non-ferrous metal to be coated.

Mixing
Redisperse any settled-out pigments by thorough mixing to a uniform homogeneous consistency, with an explosion-proof or air-driven power mixer. Do not open containers until ready to use. Keep lid on container when not in use.

Dry Time 70°F (21°C) 50% RH
Apexior Number 3C will air dry in 16 to 24 hours. Allow equipment to air dry for 7 days before placing equipment

into service. Ventilate the area with a high volume of air until there is little or no odor of solvent remaining. Coating must be free of solvents prior to being placed into service. Begin ventilation of area during application of Apexior Number 3C. Higher film thickness, inadequate ventilation and cooler temperatures will require longer cure times and could cause premature failure of the coating system. Allow 24 - 48 hours at the stated dry time of 70°F (21°C) and 50% RH prior to shipping and handling. Institute protective measures when shipping and handling surfaces coated with Apexior Number 3C. Do not use chains for tie-downs, instead use nylon straps and rubber padding which are less damaging to the coating system. Avoid mechanical abrasion during shipping and handling. As with any newly applied coating system expect some degree of coating damage when shipped and handled that will require touch-up painting prior to placing equipment in service. Higher temperatures will reduce tack free, recoat and shipping times.

Application Guidelines

Surface temperature must be at least 5°F (3°C) above dew point. Apply two coats of Apexior 3C to a dry film thickness of 3.0 - 4.0 mils (75 - 100 µm) per coat allowing for proper curing between coats. Allow to dry 16 to 24 hours before applying the second coat. Total recommended dry film thickness is 6.0 - 8.0 mils (150 - 200 microns). During spray application, hold gun at the required distance from the surface and at right angles without arching while spraying. Overlap each pass 50% to achieve a uniform finish. During brush and roller application, any settled pigment on the bottom of the can should be reincorporated back into suspension of the liquid coating, prior to being applied to the surface. Stripe coating by brush should be used to coat difficult to coat areas, edges, and weld seams prior to the first full coat application. Stripe coat material should be thinned approximately 20% by volume with the recommended thinner 180. During application of Apexior Number 3C ventilate area with high volume of air. Always utilize and follow good painting practices. Follow dry time instruction before placing in service.

Application Equipment

Apexior Number 3C may be applied by conventional spray, airless spray, roller, or brush. Do not apply Apexior Number 3C in heavier films than specified since blistering or cracking may occur. For conventional spray provide material pot with agitator, regulators for fluid and air pressure and oil and moisture traps in supply line. For airless spray application keep material continuously agitated to prevent settling of pigments. Smaller diameter hose may require increased pressure.

Conventional Spray:

Spray gun	DeVilbiss MBC-510
Air Cap	704
Fluid Needle	JGA-402-FF
Fluid tip	FF
Fluid hose*	3/8” ID
Air hose	5/16” ID
Atomizing pressure*	40-50 psi

*Smaller hose diam. or length over 25 ft. may require increased pressure.

Airless Spray:

Spray gun	Graco 205-591, 208-663
Pump	Graco 30:1 or Greater
Fluid tips*	.015 - .019
Fluid hose	3/8” ID with a 1/4” ID whip
Air pressure to pump*	40-60 psi

*Use Reverse-A-Clean® tips for fast, easy clean out. The above recommended air pressures are a guide and should be altered based on the operational condition of the spray pump and ambient climatic conditions. The minimum amount of air pressure should be used that is required to produce a proper spray fan.

Brush: Do not use synthetic bristle brushes. Using the side of the brush, scoop Apexior Number 3C from the container and apply in sweeping strokes, overlapping the brush strokes. Do not attempt to remove brush marks. If the surface to be coated is pitted, work the coating into the porosity of the surface without allowing the coating to puddle. Ensure pigment has not settled on the bottom of the can during application.

Roller: Use solvent resistant 1/4"-1/2” (6mm-12 mm) nap roller cover with phenolic core. Do not flood surface with coating. Roll out excess coating on a suitable, screened surface. Then roll out thoroughly, maintaining a continuous wet edge and uniform appearing paint film. Care should be taken during roller application to ensure the required wet film thickness is being achieved. With roller application additional coats may be needed in order to achieve the recommended dry film thickness. Excessive rolling is not recommended. Ensure pigment has not settled on the bottom of the can during application.

Thinning

Only thin Apexior Number 3C with Dampney 180 Thinner a maximum of 5% by volume. Dampney 180 can be used if encountering dry spray and for other application related conditions. Do not thin beyond federal, state and/or local VOC (volatile organic compound) emission regulations. Note: Use of other thinner not approved by Dampney may hinder product performance and void product warranty, whether expressed or implied.

Cleanup

Thoroughly flush spray equipment and hoses immediately after use with Dampney 100 Thinner. Dismantle spray equipment and clean parts, brushes, and rollers with Dampney 100 Thinner.

Inspection
When Apexior 3C is used in immersion service, the coating should be visually examined prior to placing the coating into service to ensure the film is free of pinholes and voids.

Storage
Store in cool, dry place with temperature between 50°F and 100°F (10°C and 38°C). Keep container closed when not in use.

Precautionary Information
WARNING: Combustible Liquid and Vapor. Keep away from heat, sparks, and flame. Vapors may cause flash fire. Do not breathe vapors or spray mist. Avoid contact with eyes, skin, and clothing. Use with adequate ventilation during mixing and application. Wear an appropriate, properly fitted organic vapor cartridge-type respirator (NIOSH approved) during and after application unless air monitoring demonstrates vapor/mist levels are below applicable limits. Follow respirator manufacturer's directions for respirator use. Wash thoroughly after handling. Wear protective gloves, chemical safety goggles, and impervious protective clothing. Use skin cream. In confined spaces it is required to use a positive pressure supplied-air respirator (NIOSH approved). Use explosion-proof lights and electrical equipment. Use only nonsparking tools and equipment. Wear conductive and nonsparking footwear. Make certain all electrical equipment is grounded. Observe all safety precautions and follow procedures described in OSHA regulations. See Safety Data Sheet (SDS) for complete precautionary and disposal information.
If instructions and warnings cannot be strictly followed, do not use this product.

FOR INDUSTRIAL USE ONLY

TECHNICAL DATA

Characteristics	Apexior Number 3C
Generic Type	Organic
Color	Black
Temperature resistance (wet only)	
Continuous	140°F (60°C)
Percent (%) Solids by volume	50
Dry film thickness per coat	3.0 - 4.0 mils (75 - 100 microns)
Wet film thickness per coat	6.0 - 8.0 mils (150 – 200 microns)
Theoretical coverage @ 4 mils (100 microns) DFT	200 sq./ft. per gallon (4.92 m²/liter)
Packaging size	1 US Gallon (3.78 liters) and 5 US Gallon (18.9 liters)
Application temp. @ 50% RH (air and surface)	50°F-120°F (10°C-49°C)
Drying time @ 50% RH	70°F (21°C)
To touch	6-8 hours
To recoat	16-24 hours
Full cure @ 70°F (21°C)	7 days
Weight per gallon	
Apexior Number 3C	8.2 lb (3.7 kg)
Dampney 180 Thinner	7.5 lb (3.4 kg)
Flash point	110°F (43°C)
Pot life	N/A
Shelf life	2 years (when stored properly in original unopened containers, indoors and out of the weather)
Volatile organic compounds	2.8 lb./gal. (335.5 g./l.)

WARRANTY
Dampney protective coating products are expressly warranted to meet applicable technical and quality specifications. The technical data contained herein are accurate at the date of issuance but are subject to change without prior notification. No warranty of current accuracy is hereby given or implied. User must contact Dampney to verify correctness before ordering. Dampney assumes no responsibility for coverage, performance or injuries resulting from handling or use and **LIABILITY, IF ANY, SHALL BE LIMITED TO PRODUCT REPLACEMENT.** In no event will Dampney be responsible for consequential damages, except insofar as mandated by law. Dampney **DISCLAIMS ALL OTHER WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**

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