
PRODUCT DESCRIPTION

Apexior Number 1 is a single component, easy to apply, air drying coating specifically formulated for the hot water-side corrosion prevention of metal surfaces. It is a coating that excels in severe thermal cyclic immersion service. Apexior number 1 is resistant to continuous immersion in boiling water and steam from 200°F (93°C) to 700°F (371°C). It aids in the reduction and prevention of tight bonding of hard scale and allows for easy cleaning and removal of any scale build up in steam generating equipment. Apexior Number 1 prevents pitting corrosion and stops corrosion that has already begun - except for badly pitted areas. It has outstanding wetting properties and adheres well to power tooled cleaned areas. Equipment coated with Apexior Number Number1 will also see an increase in heat transfer efficiency. Apexior Number 1 performs ideally with water treatment in steam generating equipment.

INTENDED USES

Apexior 1 Protects hot water surfaces of:

- Steam generating equipment
- Hot condensate return tanks
- De-aerators
- Hot process tanks
- Autoclaves, sterilizing equipment
- Heat recovery system
- Mud and steam drums
- Steam traps

CHARACTERISTICS

- Air dries, easy to apply
 - Excellent wettability properties
 - Easily re-coatable
 - Resistant to boiling water/steam to 700°F
 - Increases heat transfer efficiency
 - Outstanding resistance to thermal shock (immersion)
 - Inert to water treatment
 - Prevents corrosion in standby service
 - Prevents scale build up
 - Surface tolerant features
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Apexior 1

Hot Water Side Boiler Coating 370C



PRODUCT INFORMATION

Colour	Black
Generic Type	Organic
Temperature Resistance (wey only) Continuous	371°C Boiling water/steam
Pot Life	N/A
Volume Solids	50%±2%
Wet Film Thickness	174-200 µm
Dry Film Thickness	87-100 µm
Theoretical Coverage	▪ 5.0m ² /Lt @ 100µm DFT
Method of Application	Brush, Roller or Spray
VOC	438 g/L
Note	A water immersion temperature of 93°C must be achieved for the coating system to withstand water temperatures below 93°C

NOT RECOMMENDED FOR

- Hot water tank service with average operating temperature below 93°C
 - Immersion in solvents or acids
 - Interior boilers held for long periods in cold wet layup or standby service
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Drying Information	5°C	10°C	15°C	20°C	30°C	40°C
Touch Dry	-	-	-	6 hrs.	-	-
Hard Dry	-	-	-	8 hrs.	-	-
Full Cure	-	-	-	7 days	-	-

Overcoating Data – See Limitations

Substrate Temp.	5°C	10°C	15°C	20°C	30°C	40°C
Minimum	-	-	-	16 hrs.	-	-
Maximum	7 Days					

Note

*See Speccoats™ Definitions and Abbreviations

CERTIFICATIONS

Consult Speccoats™ Technical Representative for details

SYSTEMS AND COMPATIBILITY

Consult Speccoats™ Technical Representative for coating system solutions.

SURFACE PREPARATION

Carbon Steel

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 or other foreign matter.

Remove all surface imperfections that will induce premature coating system failure. Chip or scrape off weld splatter. Grind down sharp and rough edges, gouges, and pits.

Abrasive blast surface per specification SSPC-SP 10, "Near-White Blast Cleaning", or per NACE Standard No. 2 to a profile depth of 75-100 µm. Abrasive used in blasting should be selected carefully from materials of mesh size required to produce the desired anchor pattern.

If abrasive blasting is not permitted, prepare surface by power tool cleaning per SSPC-SP 11. Use 3M brand "Heavy Duty Roto Peen", type C flap wheel cleaning system mounted on an air-driven motor. This method will provide a surface equivalent to that provided by commercial blast cleaning per SSPC-SP 6, including the desired surface profile (anchor pattern).

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APPLICATION

Mixing

Re-disperse any settled-out pigments by stirring with a paint paddle followed by thorough mixing to a uniform 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. Preferably heat to 40°C for use. Add a minimal amount of solvent if necessary.

Guide

Apply 1st coat of Apexior 1 at 80-100 µm dry
Allow to dry for 6-8 hours before applying second coat at 80-100 µm dry

Apexior 1 may be applied by conventional spray, airless spray or brush. Do not apply Apexior 1 in heavier films than specified since blistering may occur.
During application of Apexior 1 ventilate area with high volume of air

APPLICATION

Pot Life

n/a

Thinner

Solvent XL

Only thin Apexior # 1 with Solvent XL

Airless Spray

Recommended

Tip Range 11-15 Thou. Pressure at the tip should not be less than 100 bar

Air Spray

Recommended

Gun

Pressure/Gravity Feed

Fluid Tip

1.6 mm to 1.8 mm

Brush/Roller

Suitable

Typically 80-100 microns can be achieved

Work Stoppage

Thoroughly flush all equipment with Xylene. All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage. Material should be filtered and viscosity e-adjusted before used.

Clean Up

Clean all equipment immediately after use with Xylene. It is good working practice to periodically flush out the spray equipment during the course of the working day. Frequency of cleaning will depend upon the amount sprayed, temperature and elapsed time, including delays.

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Environment	Surface Temperature	Ambient Temperature	Relative Humidity
Minimum	10°C*	10°C	No lower limit
Maximum	50°C	50°C	85%

*Or 3°C above the dew point

LIMITATIONS

- Overcoating information is given for guidance only and is subject to local climate and environmental conditions. Consult a Speccoats™ representative for specific recommendations
- Test performance results were obtained in a controlled laboratory environment and Speccoats™ makes no claim that the exhibited published test results, or any other tests, accurately represent results found in all field environments. As application, environmental and design factors can vary, due care should be exercised in the selection and verification of the performance and use of the coating

Kit Size	5 & 20 Lt
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STORAGE

Shelf Life	12 months at 25°C – from date of manufacture Subject to inspection thereafter. Store in dry conditions out of direct sunlight away from source of heat or ignition Store at temperature between 5 and 35°C
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IMPORTANT NOTE

Whilst we endeavour to ensure that all advice we give about the product is correct, the information given in this data sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so entirely at his own risk. As conditions of use, method of application and suitability of the substrate prior to painting are beyond our control, no guarantee is implied by the recommendations contained herein. We therefore do not accept any liability whatsoever or howsoever arising from the performance of this product or for any loss or damage arising out of the use of this product. The information contained in this sheet is liable to modification from time to time in the light of experience and ongoing product development programmes. It is the user's responsibility to ensure that this sheet is current prior to using the product

PRECAUTIONS

For complete safety and handling information please refer to the appropriate **Safety Data Sheets** prior to using this product.