APEXIOR® No. 1
Coating For Hot Wet Metal Surfaces

FEATURES
• THE RECOMMENDED COATING FOR BOILER TUBES AND TIMBER KILNS
• PERFORMANCE RANGE 95°C TO 370°C
• SIMPLE ONE PACK SELF PRIMING TOPCOAT
• IDEAL COATING FOR USE UNDER HOT INSULATION WHEN MOISTURE IS PRESENT

BENEFITS
• Air dries, easy to apply
• Single pack
• Excellent wettability properties – surface tolerant
• Easily recoatable
• Resistant to boiling water/steam to 370°C
• Increases heat transfer efficiency
• Outstanding resistance to thermal shock (immersion)
• Inert to water treatment
• Prevents corrosion in standby service
• Prevents scale buildup

USES
APEXIOR® No. 1 is a single component, easy to apply air dry coating specifically formulated for the hot waterside corrosion prevention of metal surfaces. It is a coating that excels in severe thermal cyclic immersion service.

APEXIOR® No. 1 is resistant to continuous immersion in boiling water and steam from 95°C to 370°C. It aids in the reduction and prevention of tight bonding of hard scale and allows for easy cleaning and removal of any scale buildup in steam generating equipment.

APEXIOR® No. 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 tool cleaned areas.

Equipment coated with APEXIOR® No. 1 will also see an increase in heat transfer efficiency. APEXIOR® No. 1 performs ideally with water treatment in steam generating equipment.

Recommended uses for APEXIOR® No. 1 are steam generating equipment, hot condensate return tanks, de-aerators, hot process tanks, autoclaves, sterilizing equipment, mud and steam drums and steam traps.

SPECIFICATIONS
TYPICAL PROPERTIES AND APPLICATION DATA

APPEARANCE
Boiler coating
Matt
Black

COMPONENTS
One

VOLUME SOLIDS
34%

VOC LEVEL
527 g/L

FLASH POINT
26°C (SDS)

POT LIFE
Not applicable

MIXING RATIO V/V
Single Pack
Mineral Turpentine

PRODUCT CODE
230-63079  Apexior No. 1

APPLICATION CONDITIONS

<table>
<thead>
<tr>
<th>APPLICATION CONDITIONS</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Temp.</td>
<td>10°C</td>
<td>50°C</td>
</tr>
<tr>
<td>Substrate Temp.</td>
<td>10°C</td>
<td>50°C</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td></td>
<td>50%</td>
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COATING THICKNESS (MICRONS)

<table>
<thead>
<tr>
<th>COATING THICKNESS (MICRONS)</th>
<th>Min</th>
<th>Max</th>
<th>Recommended</th>
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<tbody>
<tr>
<td>Wet film per coat (μm)</td>
<td>255</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Dry film per coat (μm)</td>
<td>87</td>
<td>100</td>
<td>100</td>
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</tbody>
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SUITABLE SUBSTRATES
Abrasive blast cleaned, hand cleaned or power tool cleaned steel.

PRIMERS
Not applicable

APPLICATION METHOD
Conventional spray, airless spray or brush

DRYING CHARACTERISTICS AT 100 μm DRY FILM THICKNESS*

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Humidity</th>
<th>Touch</th>
<th>Full Cure</th>
<th>OVERCOAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>21°C</td>
<td>50%</td>
<td>6-8 Hours</td>
<td>7 Days</td>
<td>Min</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16 Hours</td>
</tr>
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</table>

*These figures are a guide only, as ventilation, film thickness, humidity, thinning and other factors will influence the rate of drying.

1 Allow equipment to air dry for 7 days before placing equipment into service. Coating must be free of solvents prior to being placed into service.

SPREADING RATE
ASSUMING NO LOSSES 3.4 square metres per litre equals 100 μm dry film thickness

NOTE: Practical spreading rates will vary depending on such factors as application method, ambient conditions, surface porosity and roughness.
APEXIOR No. 1

TYPICAL SYSTEMS

This is a guide only and not to be used as a specification. Your specific project needs must be discussed with a Dulux Protective Coatings Consultant.

SURFACE | ENVIRONMENT | PREPARATION GUIDE | SYSTEM | DFT (μm)
---|---|---|---|---
STEEL – NEW | Internal | Power tool clean AS1627.2 St 3 or Abrasive blast AS1627.4 Class 2 | 1st Coat APEXIOR® No 1 | 100 μm
| | | 2nd Coat APEXIOR® No 1 | | 100 μm

SURFACE PREPARATION

To ensure optimum long-term coating system performance, surfaces must be clean, dry and free from dust, dirt, oil, grease, salts, swelling fluid, 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 38 - 50 microns. 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, power tool clean according to AS1627.2 Class 2. Coating performance is proportional to the degree of surface preparation.).

APPLICATION

Redispense 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. Do not apply APEXIOR® No. 1 in heavier films than specified since blistering may occur. During application of APEXIOR® No. 1, ventilate area with high volume of air.

BRUSH/Roller

Do not use synthetic bristle brushes. Using the side of the brush, scoop APEXIOR® No. 1 from the container and apply in sweeping strokes, overlapping the brush strokes. Do not attempt to remove brush marks.

CONVENTIONAL SPRAY

Thin up to 200ml/litre with mineral turpentine to aid atomisation.

Typical Set-up

- Graco AirPro: 2.18mm
- Pressure at Triton 308: 70 - 100 kPa (10 - 15 psi)
- Pressure at gun: 240 - 275 kPa (35 – 40 psi)

AIRLESS SPRAY

Standard airless spray equipment such as a Graco 205-501 with a fluid tip of 163-610, or a Graco 208-663 with a fluid tip of 163-315 and an air supply capable of delivering 550-620 kPa (80-90 p.s.i.) at the pump. Thinning is not normally required but up to 100 ml/litre of mineral turps may be added to aid application.

PRECAUTIONS

This is an industrial product designed for use by experienced Protective Coating applicators. Do not apply in conditions outside the parameters stated in this document. This product is not to be applied under the written consent of Dulux Australia. Combustible Liquid and Vapour. Keep away from heat, sparks and flame. Vapors may cause flame, sparks and flame. Vapors may cause asphyxiation or asphyxiation. Avoid contact with eyes, skin and clothing. Use with adequate ventilation during mixing and application. Wear an appropriate, properly fitted organic vapour cartridge-type respirator (NIOSH approved) during and after application unless air monitoring demonstrates vapour 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 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. Not recommended for hot water tank service with average operating temperature below 93°C, immersion in solvents or acids, or interior of boilers held for long periods in cold, wet layup or standby service. A water immersion temperature of 93°C must be achieved for the coating system to withstand water temperature below 93°C.

CLEAN UP

Clean all equipment with mineral turpentine immediately after use.

OVERCOATING

Power tool clean to remove all rust and scale and then wash to remove surface contamination. The surface must be free of oil, grease and other contaminants.

SAFETY PRECAUTIONS

Read Data Sheet, SAFETY DATA SHEET and any precautions on container labels. SAFETY DATA SHEET is available from Customer Service (13 23 77) or www.duluxprotectivecoatings.com.au

STORAGE

Store as required for a flammable liquid Class 3 in a bunded area under cover. Store in well-ventilated area away from sources of heat or ignition. Keep containers closed at all times.

HANDLING

As with any chemical, ingestion, inhalation and prolonged or repeated skin contact should be avoided by good occupational work practice. Eye protection approved to AS1337 should be worn where there is a risk of splashes entering the eyes. Always wash hands before smoking, eating, drinking or using the toilet.

USING

Use with good ventilation and avoid inhalation of spray mists and fumes. If risk of inhalation of spray mists exists, wear combined organic vapour/particle respirator. When spraying, users must comply with their respective State Spray Painting Regulations.

FLAMMABILITY

This product is flammable. All sources of ignition must be eliminated in, or near the working area. DO NOT SMOKE. Fight fire with foam, CO2 or dry chemical powder. On burning will emit toxic fumes.

WELDING

Avoid inhalation of fumes if welding surfaces coated with this paint. Grind off coating before welding.

COMPANY INFORMATION

Dulux Protective Coatings a division of DuluxGroup (Australia) Pty Ltd 1956 Dandenong Road, Clayton 3168 A.B.N. 67 000 049 427

DuluxGroup (New Zealand) Pty Ltd 150 Hut Park Road, Lower Hut, NZ A.B.N. 55 133 404 118

PACKAGING, TRANSPORT AND STORAGE

Available in 3.79 litre containers

TRANSPORTATION WEIGHT

1.09 kg/litre

DANGEROUS GOODS

Class 3 UN 1263

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