Xylan 1424

Bonded Coating System

Description

**Xylan 1424** is a premium high technology fluoropolymer coating system that has been engineered to provide exceptional corrosion protection. The system was developed to meet the demand for improved protection in marine environments and provides a hard, durable uniform, low friction coating which is capable of continuous operation at temperature extremes.

**Xylan 1424** is readily identifiable through its distinct blue colour. The coating system demonstrates exceptional adhesion and resists galling, blistering and chipping and will not crack or peel.

The **Xylan 1424** system is used extensively at petrochemical drilling sites, processing plants and water works industry to protect threaded fasteners, equipment and hardware from the effects of sub-sea and splash zone exposure, and the corrosives associated with processing petrochemical products. In addition, the uniform, low coefficient of friction of the coating reduces ‘make-up’ and ‘break-out’ torque, ensuring that installation and subsequent removal of components is much simplified. These inherent ‘anti-seize’ properties are particularly important in isolated, fire hazard or confined spaces, as are often found in, for example, the petrochemical industry.

During the application of the **Xylan 1424** system an inert barrier layer is bonded to the surface of the substrate being treated. This barrier provides a hard, clean surface finish that provides extremely long lasting protection against corrosion and weathering, and prevents electrochemical degradation.

**Xylan 1424** system outperforms other finishes, including zinc/chromate, galvanising and cadmium plating. Furthermore, the application process does not require the use of pickling or plating solutions thus eliminating the danger of hydrogen embrittlement which can weaken the metal substrate.

As **Xylan 1424** is waterborne it does not suffer from the environmental pollution problems associated with coatings containing cadmium, chromium and other toxic substances.

The **Xylan 1424** system is extremely versatile. It can withstand wide fluctuations in temperature (from -40°C to +175°C) and can be applied to a wide variety of substrates.

The **Xylan 1424** system is a cost effective solution by its ability to increase part life, reduce maintenance costs and improve productivity.

Features

- Waterborne
- Corrosion, chemical and weather resistant
- Resists galling and blistering
- Hard, dry, chip resistant
- Freedom from hydrogen embrittlement
- Readily identifiable by its blue colour
- Ability to operate over a wide temperature range
- Less torque required for a given pre-load
- Inherent anti-seize properties
- Thin even film, no hang-ups
- Versatility – excellent adhesion to many substrates
- Non-toxic

**Xylan 1424** is available from:-

**S E C Plating Pty Ltd**

Tel: +61 2 9750 8011
Fax: +61 2 9750 6565
Email: sales@secp.net
Website: www.secp.net
Areas of application

Although Xylan 1424 system is primarily designed for stud bolts and other fasteners, potential applications are limitless. Common applications which have proven their cost advantages include:

- Stud Bolts and nuts
- Structural nuts and bolts
- All other types of threaded fasteners*
- Other small components such as springs, stampings, etc.

* Some care must be exercised with finely threaded/toleranced fasteners due to coating thickness.

Technical Data

<table>
<thead>
<tr>
<th>Main Function</th>
<th>Corrosion resistance, dry film lubricant, waterborne</th>
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</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Blue</td>
</tr>
<tr>
<td>Appearance</td>
<td>Low to Medium Gloss</td>
</tr>
<tr>
<td>Finish</td>
<td>Dry</td>
</tr>
<tr>
<td>Typical Thickness</td>
<td>20 - 35 microns</td>
</tr>
<tr>
<td>Hardness</td>
<td>4-6H</td>
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<tr>
<td>Coefficient of Friction</td>
<td>0.055 - 0.10</td>
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<tr>
<td>Anti-Seize</td>
<td>Excellent</td>
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<tr>
<td>Wear Life</td>
<td>Very Good</td>
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<tr>
<td>Abrasion Resistance</td>
<td>Excellent</td>
</tr>
<tr>
<td>Flexibility</td>
<td>Very Good</td>
</tr>
<tr>
<td>Acid Resistance</td>
<td>Excellent</td>
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<tr>
<td>Alkali Resistance</td>
<td>Excellent</td>
</tr>
<tr>
<td>Solvent Resistance</td>
<td>Excellent</td>
</tr>
<tr>
<td>Operating Temperature - Intermittent</td>
<td>200°C</td>
</tr>
<tr>
<td>- Continuous</td>
<td>-40°C - 175°C</td>
</tr>
<tr>
<td>Permissible Substrates</td>
<td>Ferrous &amp; non-ferrous metals, some ceramics &amp; plastics</td>
</tr>
</tbody>
</table>

Examples of Chemical Resistance of Xylan Coating

- HCl (concentrated) at room temperature(1) No effect
- HCl (pH 2) at room temperature(1) No effect
- HCl (pH 2) 61 125°P(1) No effect
- NaOH (50%) at room temperature(1) No effect
- NaOH (pH 12.5)(1) No effect
- NaOH (pH 9.5) at room temperature(1) No effect
- NaOH (pH 9.5) at 125°F(1) No effect
- MEK at room temperature(1) Slight marks
- Toluene at room temperature(1) Slight marks
- Ethylene glycol at room temperature(1) No effect
- Salt spray for 1488 hours* <15% red rust
- Kesternich 30 cycles, <15% red rust
- Castrol Hydraulic Fluid at 200°F(2) Gloss decrease, no loss in coating integrity
- W. Canning Oceanic HK-540 at 200°F(2) Gloss decrease, no loss in coating integrity, slight color lightening

(1) = 24-hour chemical spot tests (ASTM D730&79).
(2) = Immense tests

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