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

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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

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

Examples of Chemical Resistance of Xylan Coating

HCI (concentrated) at room temperature(1)	No effect
HCI (pH 2) at room temperature(1)	No effect
HCI (pH 2) 61 125°P(1)	No effect
NaOH (5O%) 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
(1) = 24-hour chemical spot tests (ASTM D730&79).	integrity, slight color lightening
(2) = Immense tests	

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* When tested to ASTM B117 at typical thickness on grit blasted steel substrate. This may vary with shape and complexity of component and should be verified for each application