



*Xylan coatings resist chemicals and corrosion...*



*...provide low coefficient of friction...*



*...deliver constant and reproducible torque...*



*...and have been chosen by engineers since 1969.*

# **Xylan<sup>®</sup> 1000 Series**

## **Dry-film Lubricants**

### **Extreme Performance Coatings**



## General Description

Whitford's first product was Xylan 1010, a coating which enjoyed immediate acceptance as an engineering material. Today, Xylan 1010 is still the most versatile, most dependable, most successful industrial fluoropolymer coating in the world.

### Xylan 1000 Series

The Xylan 1000 Series, with a variety of color choices, is ideal for (but not limited to) industrial and mechanical applications. Whitford has water-reducible, low-VOC systems similar to the coatings described below; dry-film properties are comparable.

**Xylan 1006** contains the highest percentage of PTFE lubricant of the Series.

**Xylan 1010** provides the optimum combination of low friction, wear resistance and high-temperature release.

**Xylan 1014** alters the ratio of PTFE lubricant to bonding polymers to achieve a harder, more abrasion-resistant coating with the least sacrifice in frictional values.

**Xylan 1052** contains a number of high pressure (EP) lubricating solids selected to increase the load-bearing capability and life of the basic coating while maintaining an extremely low coefficient of friction.

**Xylan 1070** contains corrosion inhibitors for better corrosion resistance. It excels in applications requiring a dry-film lubricant effective against a broad spectrum of chemicals and corrosives.

**Xylan 1088** is a reinforced version of Xylan 1010, for added abrasion resistance.

Property	Units	Value
Tensile strength	psi (N/mm <sup>2</sup> )	2,000 - 4,000 (14 - 28)
Elongation	%	35 - 50
Water absorption	%	0.03
Service temperature		
Continuous	°F (°C)	500 (260)
Intermittent	°F (°C)	550 (287)
Pencil hardness		H - 6H
Dielectric strength	V/mil (V/μm)	1,200 - 2,000 (30 - 50)
Coefficient of friction		0.02 to 0.10
Wear resistance (K-factor US Unit)	in <sup>3</sup> x min x 10 <sup>-10</sup>	6 - 8
Wear resistance (K-factor SI Unit)	mm <sup>3</sup> x 10 <sup>-8</sup>	12 - 16

## Substrate Information

Xylan 1000 Series coatings demonstrate excellent adhesion to a variety of materials. Simple test procedures will determine if Xylan coatings will bond to a new or untried substrate material.

### Chemical Resistance

The chart presented below is intended to be used only as a guide. Your choice of Xylan coating must be subjected to your test procedures prior to its use in any chemical environment.

All tests were conducted at room temperature except as noted. All test results assume a pin-hole-free coating film.

Chemical	Concentration %	Hours	Effect
Water:			
Deionized - boiling	100	1000	None
Salt (immersed)	30	4000	None
Salt (spray)	5	1000	None
Tap 250°F/121°C @10,000 psi	100	24	None
Acids:			
Hydrochloric	36	24	None
Hydrochloric	15	150	Slight
Hydrochloric	2 pH	300	None
Hydrochloric (125°F/50°C)	2 pH	300	None
Sulfuric	25	1500	None
Nitric	35	24	None
Picric	Saturated solution	120	None
Base:			
Caustic	2	24	None
Caustic	100	336	Slight
Caustic	12.5 pH	150	Slight
Caustic	9.5 pH	300	None
Caustic (125°F/50°C)	9.5 pH	300	Slight
Solvents:			
Acetone	100	1500	None
Benzene	100	1500	None
DMAC	100	1500	None
Ethanol	100	1500	None
Fluorocarbons (12, 22, 113)	100	1500	None
M.E.K.	100	120	None
Methanol	100	1500	None
Methylene Chloride	100	1500	None
Perchloroethylene	100	1500	None
Phenol	5	120	None
Toluene	100	120	None
Xylene	100	1500	None
Other fluids:			
Skydrol (hydraulic fluid)	100	1500	None
JP-4 (jet fuel)	100	1500	None
Brake fluid (auto)	100	1500	None
H <sub>2</sub> O + gas at 250°F/121°C @2000 psi	79% CH <sub>4</sub> , 6% CO <sub>2</sub> , 15% H <sub>2</sub> S	24	None

# Whitford

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