

PRODUCT DATA SHEET

1. GENERAL INFORMATION.

Product name:	Xylan®
Product code:	1070
Recommended use:	Organic solvent based, low friction coating for studbolts. Normally used over a phosphate or other pretreatment to achieve up to 3000 hours salt spray resistance.
Typical applications:	Threaded fasteners.

2. PRODUCT SPECIFICATIONS.

Theoretical solids:	25.54 - 42.276	% by weight	17.31 - 23.47	% by volume
Relative density: (23°C)	>= 1.06	g / cm ³	<= 1.36	g / cm ³
Theoretical coverage @ 25 microns:	6.3 - 7.9	m ² / kg	6.9 - 9.4	m ² / litre(s):
Viscosity, as shipped (23°C)	40 - 50	seconds in a		BS 4 Viscosity cup
	27 - 30	seconds in a		DIN 4 Viscosity cup
Flash point:	>28	°C		
Operating temperature:	-195°C to +260°C - Continuous.		-195°C to +285°C - Intermittent.	
Dielectric Strength:	1.5 - 2.0 Kv/25µ			

3. SUBSTRATE PREPARATION.

Final product quality and performance depends on careful substrate preparation. Contaminated substrates may cause poor adhesion of the coatings or defects in the final dry film. Each item to be coated must be free of all contaminants, e.g. oil, grease, detergent, rust and blast media. Substrate preparation should be based on the design requirements of the part. If you are unsure which process is best suited to your needs please contact our technical service department. The following are the recommended substrates and substrate preparation used with this coating.

Substrates:	Most common metals.
Substrate preparation:	Degrease, gritblast and additional pre-treatment. An Ra (mean roughness) of 2.5 ± 1.0 microns, measured using surface roughness measuring equipment is recommended. This can typically be obtained using 60 - 80 mesh (200 - 250 micron) iron free, aluminium oxide grit at 80 psi (5.5 kgf/cm ²). However since the Ra value achieved depends on the actual substrate, initial trials are recommended to establish the optimum grit size and air pressure for each substrate type. A heavyweight zinc phosphate, class 1B is recommended on mild steel.
Primer:	A heavyweight zinc phosphate, class 1B is recommended on mild steel and 15 - 20 microns of Xylan 4090 is recommended. Warming the item to 40°C may facilitate application of the coating.

4. PRODUCT PREPARATION FOR APPLICATION.

Mixing prior to use:	It is imperative that the material is adequately mixed before use. The material should be high speed / shear mixed before use to eliminate any settling.
Recommended application viscosity:	40 - 60 seconds in a BS 4 viscosity cup. Optimum results are obtained when the material is at "room temperature" nominally 15 - 30°C.
Viscosity adjustment / thinning:	This material is generally suitable for application as supplied. If absolutely necessary adjust viscosity with Whitford solvent 93. Add thinner in 2% increments until the desired application characteristics are obtained. Take care not to add too much thinner as low viscosity may produce rapid settling, runs and sags or low film thicknesses.

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Filtering: This material is sieved before dispatch from our factory but as an added precaution we recommend that you filter it through a 100 mesh (150 micron) sieve prior to use.

5. RECOMMENDED APPLICATION TECHNIQUE.

Application equipment / technique: This material is designed primarily for spray application. Contact our technical service department if other types of application are being considered. This coating is applied in our laboratories using a Binks Bullows 630 spray gun equipped with a 071 (1.8 mm) material nozzle, a 66SD1 air cap and a stainless steel needle. The air supply should be equipped with air and moisture traps which are drained / serviced regularly. The proper amount of coating should be achieved with two or three passes of the spray gun across the work piece. Apply the coating to a uniform, full wet appearance.

Recommended dry film thickness / coat: Approximately 20 ± 5 microns (typical wet film thickness 100 ± 25 microns).

Substrate temperature: <45°C

Number of coats recommended: 1 or more. Will recoat, flash off between coats if applying multiple coats.

Clean-up solvent: Whitford solvent 91.

6. FLASH OFF AND CURE SCHEDULE.

Please note that oven temperatures can be very different to substrate temperatures and the following temperatures apply to **PEAK SUBSTRATE TEMPERATURE**.

Flash-off conditions: 5 minutes at 100 - 150°C [212 - 302°F].

Optimum cure schedule: 20 minutes at 240°C [465°F]

Minimum cure temperature: 30 minutes at 205°C [400°F].

Maximum cure temperature: 5 minutes at 345°C [650°F]

7. WHITFORD QUALITY CONTROL TEST METHODS.

Evaluate the cured coating according to the following specifications:

Test.	Test method number.	Specification.
Dry film thickness	114A	20 ± 5 microns.
Cure test	115B	No white precipitate or stain.
Adhesion, crosshatch and sellotape.	132C	No loss of adhesion.

8. SHELF LIFE, STORAGE AND HANDLING.

Handling: When using do not smoke. Avoid contact with the skin and the eyes. Keep away from tobacco products. Do not breathe vapours or spray mist. Use only in area provided with appropriate exhaust ventilation. Wash hands before breaks and at the end of workday.

Storage: Keep containers tightly closed in a cool, well-ventilated place. Store in original container. Keep at temperatures between 5 and 30°C.

Shelf life: 12 months. High speed/shear mix the material(s) every month to maintain quality / Turn the containers upside down every month to minimise settling. Significant increase in viscosity and/or lower dry film gloss indicates that the coating has exceeded its shelf life.

Further information: Refer also to instructions for use. Data sheets more than 24 months old may not be reliable: obtain an up-to-date version to be sure of the information.

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