ACOTHANE UK LTD

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ACOTHANE DW – TECHNICAL DATA SHEET

PRODUCT DESCRIPTION

High build solvent-free two pack polyurethane with outstanding physical properties in terms of flexural strength, tensile strength, impact and abrasion resistance.

This document should be read in conjunction with Acothane DW Instructions for Use Document.

USES

Internal and external coating and lining for metallic, cementitious, composite and GRP tanks, vessels, reservoirs, pipelines, pipe bends and random lengths, valves and fittings holding or transporting drinking water.
Also suitable for coating and lining waste water sewage and sludge and most trade effluent tanks, vessels and bund areas.

TECHNICAL PROPERTIES

Colour	Cream, Grey and Blue
Finish	Glossy hard surface with easy clean finish
Curing Agent	Acothane Activator
Mix Ratio	3 Base : 1 Activator by volume
Specific Gravity	Base: 1.27
	Activator: 1.22
	Mixed: 1.26
Volume Solids	100%
Elongation	35%
Recommended Film Thickness	Can be spray applied in wet-on-wet increments at up to 5mm
	Brush or roller application up to 500 microns per coat
	Recommended thickness for steel and GRP 1mm nominal 800 microns minimum and 1mm minimum for concrete
Theoretical Spreading Rate	1 m^2/ litre @ 1000 microns
Application Method	Brush, roller or approved plural component hot spray machine
Flash Point	200°C
VOC	0 g / litre

Drying Times	**20**°C
Touch Dry	30 mins spray / 2 hrs. brush
Hard Dry	5-6 hours
Full Cure	7 days
Minimum Overcoat	1½ hours
Maximum Overcoat	24 hours
Water Immersion	After 24 hrs. or in compliance with WRAS and drinking water regulations

At lower temperatures, curing rate will be slower.

CERTIFICATION/APPROVALS

BS6920: Part 1: 2000 “Specification” Complying with the requirements for Water Regulations Advisory Scheme tests on water quality and is suitable for use with cold water for factory and site application.

Unit 1 Clarkes Business Park
Bilton Way, Lutterworth
LE17 4HJ
0800 246 1287
info@acothaneuk.com
www.acothaneuk.com

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WRAS Water Fittings Directory Reference 0712527

Meets the performance requirements of BS EN 10290

Authorised for use under Regulation 31{4}{a} for Factory and On-Site Applications

RECOMMENDED SYSTEMS

Steel & GRP: Direct to prepared surface

Concrete: Seal with Acothane LV Sealer

SURFACE PREPARATION

Steel: Ensure surfaces are free from grease, oil salts etc. Grit blast to minimum BS 7079 standard SA 2 ½ - surface profile depth 75-100 microns.

Mechanical tools may also be used providing a surface profile of minimum 75 microns can be achieved. **Do not polish the steel surface.**

Acothane DW is a surface tolerant coating and will accommodate a degree of surface blooming and flash rusting. Contact the Acothane UK Ltd technical department if clarification is required.

GRP: Ensure surfaces are free from grease, oil, salts etc. Lightly abrade to raise a suitable surface profile.

Concrete: Remove all laitance and other contaminants by most appropriate method e.g., blast cleaning. Ensure the concrete is dry to a reading of less than 16% on the Wood Moisture Equivalent (WME) scale of the Protimeter Surveymaster SM Moisture Meter or similar instrument. Seal with LV Sealer.

PRODUCT APPLICATION

Mixing	Activator must be added to base and thoroughly mixed ensuring an even mix throughout the 'pot'. Care must be taken to avoid unmixed material being left on sides and bottom of can. Decanting mixed material into a plastic container and further mixing is recommended. Plastic container may be recovered for further use when coating on walls has cured. Pot life - approx. 25-30 minutes @25°C.
Thinners	Do not thin.
Brush	See Instructions for Use document
Roller	See Instructions for Use document
Conventional Spray	
Airless Spray	See Instructions for Use Document
Air Assisted Airless Spray	
Cleaner	Thinner No.4
Cleanup Considerations	All equipment should be cleaned immediately after use with Thinner No.4 It is advisable that equipment should be cleaned/flushed during the course of application, the frequency of which will depend on the volume of material used and timescale over which applied. Ensure all waste materials (including packaging) are disposed of in accordance with local regulations.

HEALTH, SAFETY & ENVIRONMENTAL

This product must be used in accordance with the Material Safety Data Sheet supplied by Acothane UK Ltd. The user must observe local health, safety and environmental regulations when using this product.
Consult Acothane UK Limited if there are any concerns over the suitability of this product.

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PACK SIZES

2lt composite, comprising 1.5lt base and 0.5lt activator, 4lt composite, comprising 3lt base and 1lt activator & 20lt units for spray application

PACK WEIGHTS

200 lt base:	282 kg	200 lt activator:	264 kg
20 lt base:	28 kg	20 lt activator:	26.2 kg
3 lt base:	3.81 Kg	1 lt activator:	1.22 Kg
1.5 lt base:	2.24 kg	0.5 lt activator:	0.72 kg
2 lt composite:	2.96 kg		
4 lt composite:	5.03 kg		

STORAGE CONDITIONS

Shelf life: 2 years when stored in original sealed containers at temperatures between 5°C and 30°C.

LIMITATIONS

Normal application requires relative humidity below 80%. To avoid risk of condensation, application should be done only when the temperature of the steel surface is at least 3°C (5°F) higher than the dew point. Application at temperatures below 3°C (33°F) must be watched carefully since the possible presence of ice in the pores of the surface could result in poor adhesion and reduced corrosion protection.

Temperature:	At Application:	Preferably above 3°C - surfaces free from ice/condensation
	In Service:	Immersion 0°C to 70°C depending on solution
		Dry -20°C to 120°C continuous

TEST DATA

TEST	SPECIFICATION	RESULT
Bond Strength	DIN 53232 (Primed and Unprimed Steel)	150 kg/cm^2
	DIN 53151 (Cross cut)	Glass G1
Water Vapour Permeability	DIN 52615	0.005 metric/perm.cm
Shrinkage	-	Negligible
Impact	ASTM 2794 – 69/14	20 N.M.
Tensile Strength	DIN 53504	20 N/mm^2
Elongation	ASTM D2370	20-35%
Abrasion Resistance	ASTM 4060, CS17, 1 kg. load, 1000 cycles	<100 mg. loss
Shore Hardness	-	'D' 80 approx.
Flexibility	British Gas GBE/CW6	Pass 2% strain @ 5°C
Cathodic Disbonding	British Gas GBE/CW6 (28 days @ 20°C) 1500 mV (calomel) 1.5 mm DFT Thickness	Pass

DISCLAIMER