



**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

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

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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

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### RECOMMENDED SYSTEMS

Steel & GRP: Direct to prepared surface

Concrete: Seal with Acothane LV Sealer

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### 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.
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### 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**
- 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.
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### 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.



## PACK SIZES

2lt composite, comprising 1500ml base and 500ml activator & 20 litre units for spray application

## PACK WEIGHTS

200 litre base 282kg    200 litre activator 264kg  
20 litre base 28kg    20 litre activator 26.2kg  
1500ml base 2.24kg    500ml activator 0.72kg  
2 litre composite 2.96kg  
5 litre composite 7.07kg

## 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

<u>TEST</u>	<u>SPECIFICATION</u>	<u>RESULT</u>
Bond Strength	DIN 53232 (Primed and Unprimed Steel) DIN 53151 (Cross cut)	150 kg/cm <sup>2</sup> 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 <sup>2</sup>
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

The information given in these specifications and technical advice - whether verbal, or in writing or by way of trials is for guidance only and is given in good faith, but without warranty. This also applies where proprietary rights or third parties are involved. Any person using Acothane UK Ltd products without first making further enquiries as to the suitability of the products for the intended purpose and testing the products to assess their fitness for the purpose does so at their own risk. The application, use and processing of the products are beyond our control and are therefore your own responsibility, and we can accept no liability for the performance of the products arising out of such use, beyond the value of the goods delivered by us. The information contained in these data sheets is liable to modification from time to time in the light of experience and our policy of continuous development.

It is the user's responsibility to ensure that this sheet is current prior to using the product.