



FlexiThane[®] AR 300

High Performance Pure Polyurethane Elastomeric Waterproofing Coating

INTRODUCTION:

FlexiThane[®] AR300 elastomeric membrane is a liquid applied single component coating based on urethane polymers that cure by reaction with atmospheric moisture to give a continuous film, which is rubbery and elastic. **FlexiThane[®] AR300** is a high solids coating designed to give a high-build film. It can be brush or spray applied (with airless spray equipment).

FlexiThane[®] AR300 cures to a permanently flexible seamless membrane, has good adhesion to a wide range of substrates (given proper preparation) such as roofing asphalt, slates, tiles, asbestos, concrete, brick, wood, glass and metals with suitable primer. Since it is elastomeric **FlexiThane[®] AR300** is not adversely affected by extremes of temperature consequently it does not crack at low temperatures or suffer thermal flow at elevated temperatures. **FlexiThane[®] AR300** comes in white colour hence gives Ultra Violet rays reflectance and hence gives cooling effect.

FlexiThane[®] AR300 is a ready to use material which can be applied by brush, airless spray or roller without the need to mix, stir or heat before application. It is available in 4 grades.

FlexiThane[®] AR300 SL: Self leveling grade,
FlexiThane[®] AR300 S: Spray grade,

FlexiThane[®] AR300 R: Roller grade
FlexiThane[®] AR300 T: Trowel grade

USES:

- Cured concrete substrate (Flat or sloping)
- Wood, Plywood (exterior) & metal
- Above grade (between two-course concrete and within cavity walls)
- Parking garages and concrete tanks
- Plaza decks and malls
- Fountains and pools
- Balconies, planter boxes & tunnel
- Below-grade slabs
- Walls and culverts
- Sea walls, dams and reservoirs



MULTICHEM GROUP | 1, Kirtida Bungalow, Nahur Stn. Road, Bhandup (E), Mumbai-400042,

Phone No.: 91-22-25669137, 25664890, e-mail: info@multichemgroup.net

www.multichemgroup.net,

Flexithane AR300/2016/R4-18-10-2019



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FlexiThane® AR300 elastomeric membrane is designed to bond to many types of substrate particularly those commonly used as roofing, such as felt, asphalt, slate, tiles, asbestos, concrete, brick, wood glass and metals (with suitable primer). They can also be applied to sprayed polyurethane (p.u.) foam insulation, **PowerFom™**. However, it is essential that substrate and structures are properly prepared and stable. Surfaces previously treated with silicone based materials will be difficult to overcoat.

Substrates with poor adhesion to the underlying structure (e.g. blistered roofing felt) may also cause problems in providing sound over-coating.

FlexiThane® AR300 is stocked in white and gray colour, other colours are made as per order.

TYPICAL CHARACTERISTICS:

Nature	Single Component PU based
Colour	White, Gray, Red
Application time at 30°C	1 hour
Surface dry time at 30°C	1 to 4 hours, but it may take more time depending on atmospheric moisture
Hard dry time at 30°C	12 to 25 hours (approximate)
Complete curing time at 30°C	7 days
Recoatibility time at 30°C	After first coat becomes touch dry but within 24 hours of first coat
Finish	Smooth and matt
Dry film thickness	500 µm to to 1.5 mm (two/three coats)
Coverage	1.0- 2.0 Kg/m ²
Tensile Strength (ASTM D412)	>600 psi (4 N/mm ²)@ 25 °C (fully cured)
Viscosity, Poise	FlexiThane® AR300 SL= 120, FlexiThane® AR300 S=400, FlexiThane® AR300 R=800, FlexiThane® AR300 T= 4000
Elongation (ASTM D412)	> 400% @ 25 °C
Crack Bridging Capability	Up to 2 mm crack
Resistant to Roof Penetration	Resistant
Recommended Coats	2 to 3 coats depending upon the substrate
Packing	20 Kg

APPLICATION:



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The dry film thickness (DFT) of **FlexiThane[®] AR300** should not be more than 0.5 mm for each coat. Rough or textured surfaces will reduce the coverage rate and consequently more material must be allowed to achieve the minimum D.F.T. **FlexiThane[®] AR300** is a membrane coating, not a paint and as such protection is only achieved with a high film build i.e. 1 mm. minimum. It is therefore essential that this is achieved. The membrane can be applied in two 0.5 mm coats. Two coats are recommended on uneven and jointed surfaces to minimise the possibility of thin patches, missed areas and pinholing. In the case of two coat application it is important to recoat within 24 hours of the first coat becoming sufficiently cured to allow operator access. Do not dilute **FlexiThane[®] AR300**.

METHOD

1. Remove all loose material by vigorous brushing, wire brush if necessary.
2. Treat any remaining fungal growth with proprietary fungicide as recommended.
3. Allow surface to dry thoroughly and any moisture contained in the structure to evaporate (<5%). **Multithane[®] Primer 21**, PU Primer and **FlexiThane[®] AR300** should not be applied to damp substrates.
4. Fill cracks and voids with a mastic sealant **MultiFlex PU, Primemix RM** or **Crackfix**.
5. Prime with **Multithane[®] Primer 21**, PU Primer (6-10 m²/lt) depending on substrate texture and porosity which cures to a slightly tacky film in 2- 4 hours. Overcoat with **FlexiThane[®] AR300** as soon as possible after this time and certainly within 24 hours. If delay exceeds this, repriming is advised.
6. Apply **FlexiThane[®] AR300** at a maximum film thickness of 0.5 mm/coat for two-coat applications. For total thickness of 1.5mm, suitable number of coats should be applied to avoid, pinhole formation, or use spice roller to remove pinholes/air bubbles.
7. In the case of two coat application the first coat should be touch dry in 12-24 hours (in some conditions this might be delayed) and the second coat should be applied within 24 hours of this stage to ensure good adhesion.
8. Day work joints: Where application extends over more than a working day, an overlap of 150 mm should be used.
9. Aromatic hydrocarbon solvent should be used to clean equipment etc.

Upon completion of the roof coating system, Multichem , Architect, or Applicator shall make final inspection to determine the dry film thickness of the coating and to verify that systems meets the manufacturers requirement of Warranty.

SAFETY DATA:



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- Irritating to eyes, respiratory systems and skin.
- Risk of serious damage to eyes.
- Keep out of reach of children. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice.
- After contact with skin, wash immediately with plenty of clean water.
- Wear suitable protective clothing, gloves and eye/face protection.

Please consult our technical department for further information.

WARRANTY

Multichem warrants **FlexiThane[®] AR300** to be free from manufacturing defects as defined in this warranty. Manufacturing defects are considered to be those defects that occur due to the quality of the ingredients or from the manufacturing process itself. This warranty does not include labor costs and other costs or expenses associated with the removal or installation of **FlexiThane[®] AR300**.

Because the Multichem does not perform the actual installation, it cannot be held responsible for the results of the application. Multichem specifically disclaims problems that occur due to weather conditions, structural movement, structural design flaws and application techniques.

This warranty is in lieu of all other warranties expressed or implied including the warranty of merchantability and fitness of purpose and of all other obligations or liabilities on Multichem part. Multichem neither assumes nor authorizes any person to assume for Multichem any liability in connection with the sale and installation of **FlexiThane[®] AR300**.

Because of constant improvement of manufacturing techniques and formulations, Company reserves rights to change this datasheet and its contents without prior notice.



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