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FlexiThane[®] AR145

High Performance Polyurethane Elastomeric Coating

145INTRODUCTION:

FlexiThane[®] AR145 elastomeric membrane is a liquid applied single component coating based on pure polyurethane that cure by reaction with atmospheric moisture to give a continuous film, which is rubbery and elastic. **FlexiThane[®] AR145** is a high solids coating designed to give a high-build film. It can be brush or spray applied (with airless spray equipment).

FlexiThane[®] AR145 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. Unlike more traditional bitumen based products, **FlexiThane[®] AR145** does not readily embrittle with age, exposure to ultra violet radiation or weathering, and hence it does not crack or craze. Since it is elastomeric **FlexiThane[®] AR145** is not adversely affected by extremes of temperature consequently it does not crack at low temperatures or suffer thermal flow at elevated temperatures.

FlexiThane[®] AR145 is a ready to use material which can be applied by brush, airless spray, roller or trowel without the need to mix, stir or heat before application. It is available in 4 grades.

FlexiThane[®] AR145SL: Self leveling grade, **FlexiThane[®] AR145 R:** Roller grade
FlexiThane[®] AR145 S: Spray grade, **FlexiThane[®] AR145 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





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Walls and culverts
Sea walls, dams and reservoirs

FlexiThane® AR145 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. Use of proper primer coat is always advised. **FlexiThane® AR145** can also be applied to sprayed polyurethane (p.u.) foam insulation. 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® AR145 is manufactured in black, dark gray, red, blue and green colours only.

TYPICAL CHARACTERISTICS:

Nature	Single Component PU based
Colour	White/Black/gray/red/blue/green
Application time at 30°C	1 hour
Surface dry time at 30°C	1 to 3 hours, but it may take more time
Hard dry time at 30°C	8 to 10 hours
Complete curing time at 30°C	3 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 2 mm (two coats)
Coverage	1.2 Kg/m ² (1mm) (as per roughness or porosity of surface)
Tensile Strength (ASTM D412)	>300 psi (2 N/mm ²) @ 25 °C
Viscosity, Poise	FlexiThane®AR145 SL= 120, FlexiThane®AR145 S=400, FlexiThane® AR145 R=800, FlexiThane® AR145 T= 4000
Elongation (ASTM D412)	> 700% @ 25 °C
Solid% by Weight	>91%
Recommended Coats	2 to 3 coats depending upon the substrate
Packing	20/25 Kg





APPLICATION:

METHOD

1. Remove all loose material by vigorous brushing, wire brush if necessary. Use power grinder to create concrete profile CPS 2 or more.
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. **MULTITHANE[®] Primer 21** and **FlexiThane[®] AR145** should not be applied to damp substrates.
4. Fill cracks and voids with repair mortars such as **FloorTop[®] EP**, **PrimeMix[®] RM** or a mastic sealant **Multiflex PU**.
5. Check the moisture content of the concrete floor. It should be <5%.
6. If moisture content is <5% prime with **MULTITHANE[®] Primer 21** (6-10 m²/lt) depending on substrate texture and porosity which cures to a slightly tacky film in 2- 4 hours. If moisture content is >5% use **Aquablock[®] Primer**. Overcoat with **FlexiThane AR145** as soon as possible after this time and certainly within 48 hours. If delay exceeds this, repriming is advised.
7. Apply **FlexiThane[®] AR145** at approximate film thickness of 0.5 mm.
8. If **Fibrecon[®] P140** is to be used, stick the fibre cloth when **FlexiThane[®] AR145** is still wet.
8. 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.
10. Day work joints: Where application extends over more than a working day, an overlap of 150 mm should be used.
11. Aromatic hydrocarbon solvent should be used to clean equipment etc.

Upon completion of the waterproofing coating system, Multichem , Architect, or Applicator shall make final inspection to determine the dry



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film thickness of the coating and to verify that systems meets the manufacturers requirement of Warranty.

SAFETY DATA:

- 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[®] AR145** 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[®] AR145**.

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[®] AR145**.

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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