

## INTRODUCTION:

**Multithane®-100** elastomeric membrane is a liquid applied 2-component coating based on polyuria chemistry that cures by reaction to give a continuous film, which is rubbery and elastic. It contains leafing pigments, with reinforcing properties. **Multithane®-100** is a very high solids coating designed to give a high-build film. It can be brush or spray applied (with airless spray equipment) or even troweled.

**Multithane®-100** cures to a permanently flexible seamless membrane. Since it is elastomeric, **Multithane®-100** is not adversely affected by extremes of temperature consequently it does not crack at low temperatures or suffer thermal blow at elevated temperatures.

**Multithane®-100** is available in following grades:

**Multithane®-100 SL** : (self-leveling/squeegee)    **Multithane®-100 S** : (spray)  
**Multithane®-100 T** : (thixotropic/trowel)        **Multithane®-100 R** : (roller)

## USES:

- Cured concrete substrate e.g. roofs (Flat or sloping), balconies, and decks
- All metal roofs
- All prefabricated Concrete Structures
- Terrace, Podium, Water Tanks, Terrace Garden
- Basement and retaining wall
- Crack bridging membrane

**Multithane®-100** 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 appropriate primers. 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.

## General Introduction:

**Multithane®-100** offer the following benefits:

- High temperature stability.
- Low temperature flexibility down to –15 degree.
- Dirt pick-up resistance.

- Excellent adhesion to polyurethane foam and many other substrates.
- Easy application by spray, brush, or roller-thus lowering application costs.
- Low toxicity and odour.

## Tensile Strength and Elongation

Thermal movement of some structures requires high tensile strength and elongation as well. The tolerance for movement of these coatings is essential due to the dynamic nature of a substrate which expands and contracts due to climatic conditions and the shifting and settling of the foundation.

These properties also give property-formulated elastomeric coatings the needed flexibility and elasticity to withstand impact from foot or vehicle traffic and other abuse without rupturing.

## Stop Leaks

**Multithane-100** stops most small holes in the substrate by application directly to surface substrate. It is designed for complete waterproofing of substrate.

## TYPICAL CHARACTERISTICS:

PROPERTIES	VALUES
<b>Nature</b>	2 Component Ready to Use Material
<b>Colour</b>	White / Gray/Other Selected Colours
<b>Solid Content</b>	100%
<b>Pot Life at 23°C</b>	20 minutes
<b>Hard dry time at 30°C</b>	8 to 10 hours
<b>Complete curing time at 30°C</b>	3 days
<b>Recoat ability time at 30°C</b>	4 to 5 hours
<b>Finish</b>	Smooth and matt
<b>Coverage</b>	1.3 kg/m <sup>2</sup> (as per roughness or porosity of surface) for 1.0 mm thickness
<b>Tensile Strength (ASTM D412)</b>	>6 MPa @ 25 °C (2mm Thickness)
<b>Tear Resistance, N/mm</b>	40
<b>Elongation (ASTM D412)</b>	> 600% @ 25 °C
<b>Recommended Coats</b>	2 to 3 coats depending upon the substrate
<b>Packing</b>	5kg, 12.5kg, 25kg

## Colours

**Multithane<sup>®</sup>-100** is stocked in white, light gray and medium gray and green.

## Warranty

**Multithane<sup>®</sup>-100** warranty available in five (5), ten (10), fifteen (15) and twenty five (25) year periods. The warrantor guarantees the installations against leaks caused by normal weather. Refer to individual warranty document for additional information.

## APPLICATION GUIDELINES:

### Surface Preparation

Surface preparation and use of suitable primer is very important while applying **Multithane-100**. All surface must be clean and dry and free of any dust, dirt, oil, surface chemicals or other chemicals or other contaminants that may interface with optimum adhesion. All loose gravel, if present, shall be removed by power sweeping and/or vacuuming. Remaining gravel shall be power spud to achieve the smoothest surface possible. Any unsound areas in the roof, i.e. blisters, delamination, deterioration, moisture saturation, severe corrosion, sharp projections, ridges, etc. shall be repaired or replaced.

Low areas that hold excessive ponding water must be brought into conformance by installing additional drains or adding additional slope to the existing drains.

### Mixing

Mix component A and B together to get uniform mix. Use a power mixer capable of uniformly mixing the entire container prior to use. Reducing the mixture is not recommended, as it affects the coatings ability to achieve a heavy film build with excellent verticle hold and hide.

### Application:

Reinforce all moving cracks, seams, splits, control joints, verticle/ horizontal interfaces, roof termination pints, openings, transition areas, around the base of all vents pipes and other protrusions, as well as around HVAC units and other roof mounted equipment with Fibrecon Mesh, a polyester reinforcement fabric, embedded in to **Multithane<sup>®</sup>-100**.

All preparation materials shall be allowed to dry thoroughly prior to application of the **Multithane®-100** coating (Including primers).

The dry film thickness (DFT) of **Multithane®-100** should not be less than 0.5 mm. or more than 1.0 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. **Multithane®-100** 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 one 1 mm. or 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.

1. Apply **Multithane®-100** first base coat (gray in colour), at a minimum rate of 0.65 kg/m<sup>2</sup>.
2. After allowing the basecoat to dry apply **Multithane®-100** at a minimum rate of 0.65kg/m<sup>2</sup> as a second coat.
3. The total coat, minimum dry film thickness required at any location shall be 620 micron for flat surface.

## METHOD IN BREIF

1. Remove all loose material by vigorous brushing with wire brush or sand blasting.
2. Treat any remaining fungal growth with proprietary fungicide such as **MultiKleen®** as recommended.
3. Allow surface to dry thoroughly and any moisture contained in the structure to evaporate. **Multithane® PU Primer** and **Multithane®-100** should not be applied to damp substrates. For damp surface, use **AquaBlock® Primer**, a water based epoxy primer.
4. Fill cracks and voids with a mastic sealant such as **Multiflex® PU**.
5. Prime with **Multithane® Primer 21** (6-10 m<sup>2</sup>/kg) depending on substrate texture and porosity which cures to a slightly tacky film in 2- 4 hours. Overcoat with **Multithane®-100** as soon as possible after this time and certainly within 24 hours. If delay exceeds this, re-priming is advised.
6. Apply **Multithane®-100** at a maximum film thickness of 0.5 mm for two-coat applications and 1 mm for one coat.
7. In the case of two coat application the first coat should be touch dry in 12-48 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.

## STORAGE:

Store in dry, frost-free conditions at moderate temperatures not greater than 25 °C.

## WARRANTY

Multichem warrants **Multithane®-100** 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 **Multithane®-100**.

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 **Multithane®-100**.

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