



# HydroThane 1050

Food Grade Two Component Polyurethane based Waterproofing Coating

## INTRODUCTION:

**HydroThane-1050** waterproofing is a high-solids, liquid applied 2-component elastomeric, ultra-high performance, potable-grade coating based on polyurethane chemistry that cures by reaction to give a monolithic film. It can be brush or spray applied (with airless spray equipment) or even troweled.

HydroThane-1050 cures to a permanently flexible seamless Crack bridging membrane which is not adversely affected by extremes of temperatures. It does not crack at low temperatures or suffer thermal blow at elevated temperatures.

## USES:

- ☐ Concrete Roofs, Podiums, Landscaped Terraces
- ☐ Metal roofs
- ☐ Potable Water Tanks, Fire Water Tanks
- ☐ Prefabricated Concrete Structures
- ☐ Flyover, Bridge deck
- ☐ Basement retaining wall

HydroThane-1050 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.

## General Introduction:

HydroThane-1050 offer the following benefits:

- ☐ High temperature stability.
- ☐ Low temperature flexibility down to -15 degree.
- ☐ Dirt pick-up resistance.
- ☐ Food Grade - meets requirements of 21-CFR-US-FDA 175.300 for contact with aqueous food / beverages.
- ☐ 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.



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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.

## TYPICAL CHARACTERISTICS:

PROPERTIES	VALUES
Nature	2 Component Ready to Use Material
Volume Solids	100%
Colour	Gray/ Blue
Pot Life at 23°C	20 minutes
Hard dry time at 30°C	8 to 10 hours
Complete curing time at 30°C	3 days
Recoat ability time at 30°C	4 to 5 hours
Finish	Smooth and matt
Coverage	1.10 kg/m <sup>2</sup> for 1.0 mm thickness (Provide extra consumption based on site conditions such as roughness and porosity)
Tensile Strength (ASTM D412)	>11 MPa @ 25 °C
Tear Resistance, N/mm	>40
Elongation (ASTM D412)	> 500% @ 25 °C
Shore Hardness, A	80
Recommended Coats	2 to 3 coats depending upon the substrate
Packing	25kg

## Colors

HydroThane-1050 is stocked in white, light grey and Blue colors.

## APPLICATION GUIDELINES:

### Surface Preparation

Surface preparation and use of suitable primer is very important while applying HydroThane. 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.



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## 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 coating's ability to achieve a heavy film build with excellent vertical hold and hide.

## Application

Reinforce all moving cracks, seams, splits, control joints, vertical/ horizontal interfaces, roof termination points, openings, transition areas, around the base of all vent 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 HydroThane-1050.

All preparation materials shall be allowed to dry thoroughly prior to application of the HydroThane coating (Including primers).

## Method In Brief:

1. Remove all loose material by vigorous brushing with wire brush or sand blasting.
2. Allow surface to dry thoroughly and any moisture contained in the structure to evaporate. **Multithane® Primer 21** and HydroThane-1050 should not be applied to damp substrates. For damp surface, use **Aquablock Primer**, an epoxy-based primer and check the moisture content.
3. Fill cracks and voids with a mastic sealant such as **Multiflex PU 1423**.
4. 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 HydroThane-1050 as soon as possible after this time and certainly within 24 hours. If delay exceeds this, re-priming is advised.
5. Apply HydroThane-1050 at a maximum film thickness of 0.5 mm per coat for multi-coat applications.
6. 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.
7. Day work joints: Where application extends over more than a working day, an overlap of 150 mm. should be used.
8. 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.



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## WARRANTY

Multichem warrants **HydroThane-1050** to be free from manufacturing defects as defined in this warranty. Manufacturing defects are 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 **HydroThane-1050**.

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 **HydroThane-1050**.

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