

INTRODUCTION:

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

HydroThane™ Tankgard™ FG cures to a permanently flexible but hard seamless membrane. Since it is elastomeric, **HydroThane™ Tankgard™ FG** is not adversely affected by extremes of temperature consequently it does not crack at low temperatures or suffer thermal blow at elevated temperatures.

USES:

Waterproofing Membrane

- Potable Water Tanks and Other Water Bodies
- Cured concrete substrate e.g. roofs (Flat or sloping), balconies, and decks
- All metal roofs
- All prefabricated Concrete Structures and irrigation pipe lines
- Terrace, Podium, Terrace Garden, Flyover, Bridge deck
- Basement and retaining wall

HydroThane™ Tankgard™ FG elastomeric membrane is designed to bond to many types of substrate particularly those commonly used as roofing, such as slate, tiles, concrete, brick, wood 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:

HydroThane™ Tankgard™ FG offer the following benefits:

- High temperature stability.
- Low temperature flexibility down to -15 degree.
- Complete Leakage Protection from Water and other chemicals
- Food Grade - meets requirements of 21-CFR-US-FDA 175.300 for contact with aqueous food / beverages.
- Elastic in Nature hence crack bridging properties
- 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

HydroThane 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
Nature	2 Component Ready to Use Material
Volume Solids	100%
Type	Hand Applied Food Grade Polyurethane
Colour	Blue and selected Colours
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	1.10-1.20 kg/m ² for 1.0 mm thickness (Provide extra consumption based on site conditions such as roughness and porosity)
Tensile Strength (ASTM D412)	>13 MPa @ 25 °C (1mm Thickness)
Tear Resistance, N/mm	>40
Elongation (ASTM D412)	> 120% $\pm$ 10% @ 25 °C (1mm Thickness)
Shore Hardness A	80
Hydrostatic Water Pressure	Passes 5 Bar
Adhesion To concrete	> 2 N/mm ²
Composite Packing	17 kg pack

Colours

HydroThane™ Tankgard™ FG is stocked in blue Colour.

Warranty

HydroThane™ Tankgard™ FG 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 **HydroThane™ Tankgard™ FG**. 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 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 pints, 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™ Tankgard™ FG**.

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

METHOD IN BRIEF

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 Primer 21** and **HydroThane™ Tankgard™ FG** should not be applied to damp substrates. For damp surface, use **Vapourgard®**, or Aquablock Primer, epoxy-based primers and check the moisture content.
4. Fill cracks and voids with a mastic sealant such as **Multiflex Series**. Damaged concrete should be repaired with Powerpatch 300.
5. Prime with **Multithane® Primer 21** (6-10 m²/kg) depending on substrate texture and porosity which cures to a slightly tacky film in 2- 4 hours. Overcoat with HydroThane as soon as possible after this time and certainly within 24 hours. If delay exceeds this, re-priming is advised.
6. Apply **HydroThane™ Tankgard™ FG** a maximum film thickness of 0.5 mm per coat for multi-coat applications.
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.

STORAGE:

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

WARRANTY

Multichem warrants **HydroThane™ Tankgard™ FG** 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™ Tankgard™ FG**.

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™ Tankgard™ FG**.

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