

OVERVIEW & FEATURES

LiquiTec is an extremely low odor, fluid-applied waterproofing system designed to maintain, restore and upgrade the performance of aged modified bitumen and single-ply roof systems. This two-component, 100% solids, aliphatic polyurea cures quickly to form a highly durable, impact and UV resistant finished roof membrane that increases the life span of the existing roof. It can also be used as a repair material for maintenance applications. LiquiTec can easily be applied by brush, roller and squeegee.

Low Odor & Applicator Friendly - Virtually odorless with no VOCs, this restoration system is ideal for sensitive applications like hospitals, schools and any other structures where occupants are present. This catalyzed product provides faster curing and rain resistance, promoting more efficient installations.

Energy Efficient & Chemical/Fungal Resistance - The bright white reflective finish provides energy savings through reduced cooling costs and prolongs the life of the existing roof membrane, decreasing the damaging effects of heat aging and thermal shock. LiquiTec's aliphatic formulation resists chemical and fungal attack.

Tough Seamless Membrane - Cures to an extremely tough and resilient membrane that forms a barrier against hail, foot traffic, wind scour and other impact that commonly damage roofs. It seals up existing roof membrane seams where roof leaks and other damage can occur.

Versatile Waterproofing - Can be used to seal laps/seams, make spot repairs, or restore roof systems with steeper slopes.

PREPARATION

Make any necessary repairs, including removal of any wet insulation and roofing materials and replace with like materials. Allow repairs to cure completely. Confirm local water run-off ordinances and restrictions prior to cleaning roof. Carefully power wash all roof surfaces with greater than 2,000 psi pressure to remove debris, rust, scale, dirt, dust, chalking, peeling or flaking coatings, etc. Do not force water into the roof system or damage roof surfaces. Wearing personal protective clothing and equipment, remove areas of algae, mildew or fungus with Simple Green Solution. Rinse at least twice to be sure all cleaning agents or contaminants are completely removed to prevent adhesion issues. If the roof surface becomes contaminated with dirt, dust or other particles at any time during the application of the LiquiTec system, cleaning measures must be taken to restore the surface to a suitable condition.

APPLICATION

Refer to the LiquiTec Restoration Application Guides (Single-Ply, Modified Bitumen, or Metal) for complete substrate specific repair, preparation and application requirements.

The Gray LiquiTec Base must be used as the base coat application. Gray or White may be used as the finish coat. On steeper slope

applications (2:12 or greater), it is recommended to use LiquiTec FG. LiquiTec roof restoration systems typically require either partial reinforcement of seams, laps and details or full fabric reinforcement of the entire existing roof surface.

Mixing

Open LiquiTec container. Remove Part B jug and its plastic holding compartment out of the pail. Mix Part A liquid for one minute using an electric heavy-duty power drill and Jiffy mixer blade (ES model). Cordless drills are not permitted as they will not properly mix the materials. While mixing, slowly pour contents of Part B jug into the Part A pail. Mix the two components together for two (2) minutes moving the Jiffy blade from top to bottom and along the sides to ensure the product is thoroughly mixed. Always mix entire kit contents together as packaged. **Do not break down into smaller quantities.**

PRECAUTIONS

- Product application must not be done when rain or other conditions such as fog or heavy dew are possible within a 12-hour period.
- Moisture survey must be conducted prior to roof restoration to identify any wet areas of the existing roof system that must be replaced with like-materials.
- In accordance with Garland's adhesion testing protocol, ensure that the LiquiTec coating bond strength to the existing roof substrate(s) is four (4) pounds per linear inch (pli) or greater.
- Storage temperatures should be between 60°F to 80°F (15.6° C to 26.7°C). Indoor ventilated storage is recommended. Ensure job site storage is in a shaded and ventilated area. Do not store in direct sunlight.
- Mixed product pot life is 25-35 minutes depending on ambient temperature. Rising temperatures may reduce pot life and increase the product's viscosity at a faster rate than desired.
- Mix product near the application area and only enough material that can immediately be applied to the roof.
- Dipping a roller into the bucket and rolling the material is not advised, as it can shorten the pot life of the product.
- Do not spray.
- Coverage rate varies depending on warranty and substrate.
- Restrict coating application when ambient temperature is greater than 95°F (35°C).
- **Roof surface must be at least six Fahrenheit degrees or three Celsius degrees above the dew point and rising.**
- In areas where the roof is subject to foot traffic, it is recommended to apply a granule non-skid walkway surface.
- Excess water on the roof surface can cause the roof to become slippery.
- Reinforcement fabric should be used when coating over heavily alligatored surfaces, areas that pond water, and over surface irregularities.
- Not intended to restore glaze coats of asphalt.

Technical Data	LiquiTec & LiquiTec Base
Density @ 77°F (25°C) (ASTM D 2939)	9.6 lbs./gal. (1.2 g/ml)
Tear Resistance (ASTM D 624)	449 lbs./in.
Elongation	>800%
Tensile Strength (ASTM D 412)	>2500 psi
Low Temperature Flexibility (ASTM D 522)	-60°F (-51°C)
Hardness	80 Shore A
Lap Shear Strength Modified seam with LiquiTec (ASTM D 7379)	231 lbf/in.
Volume Solids (ASTM D 2697)	100%
Water Absorption (ASTM D 570)	1.53% (24 hr)
Drying Time* (Typical) @ 77°F (25°C) and 50% R.H.	Skin time: 3-4 hours Over-coat time: 6 hours
Shelf Life	12 months, stored properly and unopened
Packaging	Part A - 4 gal. pail (15.1 l) Part B - 0.5 gal. jug (1.89 l)
Shelf Life	12 months, unopened
Water Leakage Resistance (ASTM D 7281)	Pass

* Higher temperature will result in reduced skin and over-coat time, lower temperature and/or humidity may extend times.

Technical Data	LiquiTec Reinforced System
Dynamic Impact Resistance (ASTM D 5635)	37 joules
Static Puncture Resistance (ASTM D 5602)	20 kg
Tensile Tear (ASTM D 4073)	274 lbf
Tensile Load Strain (ASTM D 5147)	135 lbf/in.
Energy to Break Toughness (ASTM D 5147)	46 in.-lbf/in. ²
Thickness Dry film thickness	80-96 mils (dft)
Water Absorption	2.30%

Eco-Facts	LiquiTec (white)	LiquiTec Base (gray)
VOC (mixed)	0 g/l	0 g/l
Reflectance		-
Initial	0.86	
3-Year Aged	0.69	
Emittance		-
Initial	0.90	
3-Year Aged	0.90	
SRI		-
Initial	109	
3-Year Aged	84	
Microbial Resistance (ASTM G 21)	No microbial growth	No microbial growth

Tested using the Practice for Laboratory Aging of Roofing Materials, as specified in ASTM D7897

For specific application recommendations, please contact your local Garland Representative or Garland Technical Service Department.



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Tests verified by independent laboratories. Actual roof performance specifications will vary depending on test speed and temperature. Data reflects samples randomly collected. ± 10% variation may be experienced. The above data supersedes all previously published information. Consult your local Garland Representative or the home office for more information.

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