

TECHNICAL
DATA SHEET

THERMOTEK™
X99 SILICONE

SINGLE COMPONENT
SILICONE COATING

DESCRIPTION

THERMOTEK™ X99 SILICONE is a solvent-free single component elastomeric waterproof 100% silicone coating with high solids content manufactured to provide long-lasting protection to your roof. Its superior weathering and water resistant characteristics make THERMOTEK™ X99 SILICONE the ultimate protection against ponding water.

PROPERTIES

Physical Property	Test Method	Result
Appearance	INTERNAL	LIQUID
Type	INTERNAL	100% SILICONE ROOF COATING
Color	INTERNAL	WHITE
Whiteness	ASTM E-313	80 ± 2
Solar Reflectance	ASTM C-1549	0.88
Solar Reflectance Index	CRRC	110
Thermal Emittance	ASTM C-1371	0.89
Solids by volume, %	ASTM D-1644	97.0 +/- 2.0
Solids by weight, %	ASTM D-1644	97.0 +/- 2.0
Elongation, %	ASTM D-412	≥ 200
Drying time for water resistance	ASTM D-1640	1 TO 4 HOURS*
Total drying time	ASTM D-1640	8 TO 24 HOURS*
Fungus resistance	ASTM G-21	APPROVED
Tensile Strength, lb/in ² (MPa)	ASTM D-412	200 (1.38)
Accelerated weathering	ASTM G-151 & G-154	NO DELETERIOUS EFFECTS AFTER 5,000 HOURS
Low Temperature Flexibility, (-14.8 ° F 9.6 ° C)	ASTM D-522	APPROVED
Water Permeability, perms	ASTM E-96	≤ 2.5
Hardness Shore A	ASTM D-2240	38

*Required time will increase depending on humidity.

PRESENTATION

Physical Property	Test Method	Result
Viscosity, cps	ASTM D-2196	MIN 5000
VOC (g/L)	ASTM D-3960	< 10
Density gr/ml (lb/gal)	ASTM D-1475	1.36 +/- 0.02 (11.4 +/- 0.5)

APPLICATION TOOLS

THERMOTEK™ X99 SILICONE can be applied by brush, squeegee, ¾" nap woven roller, and with a proper high-pressure commercial spray equipment.



SILICONE COATING

USAGE

THERMOTEK™ X99 SILICONE is an ideal product for use as a maintenance coating system over pre-existing elastomeric roofing in sound conditions. It can be used over many different types of roofing systems such as: metal, wood, Polyurethane Sprayed Foam, FRP, Modified Bitumen membranes (granulated finish), acrylic roofing, Rigid Foam Insulation, XPS (Rigid Extruded Polystyrene), Asphalt Built-Up surfaces and Single-Ply membranes.

ADVANTAGES

- Prevents / stops leaks.
- Provides permanent waterproofing protection.
- Extends the life of your roof.
- Reduce electric energy consumption.
- Reduces thermal shock.
- Eliminates usage of emulsions.
- Significantly reduces POLYESTER MESH usage.
- Available systems up to 20 year guarantee coverage.

APPROVALS AND CERTIFICATIONS

Meets the requirements of California Energy Commission Title 24.
Cool Roof Rating Council (CRRC)
Product ID#0734-0018.



CONTACT US

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SURFACE PREPARATION

Roof surface must be clean, dry and free of any oil, grease, dirt and any other contaminants that may interfere the proper adhesion (pressure washing is recommended). Rusted areas shall be mechanically abraded and deteriorated metal shall be replaced. Any loosely adhered coating must be removed; bare surfaces must be prepared and checked for compatibility. Follow our roof repair procedures and ALWAYS perform a coating adhesion test before doing the entire roof.

APPLICATION METHOD

Prior installation, surface must be clean and free of any contaminant that may interfere with proper adhesion. For application in extreme temperatures (below freezing point or above 120°F (49°C)), contact THERMOTEK Technical Support; for cold weather application, keep material stored above 65°F (18°C). Review all critical points over the surface and repair them with THERMOTEK™ SILICONE MASTIC and POLYESTER MESH. Before applying, THERMOTEK™ SILICONE PRIMER and THERMOTEK™ X99 SILICONE, both must have a mechanical agitation from 3 to 5 minutes.

SMOOTH SURFACES

After the application of the THERMOTEK™ SILICONE PRIMER all over the surface, apply one coat of THERMOTEK™ X99 SILICONE at a rate of 1.50 gallon per 100 square feet, then allow it to dry at a temperature equal to or greater than 55°F (13°C) a minimum of 8 hours and no more to 72 hrs (or until it can be safe to walk on), product is moisture cure, which means low humidity will result in longer drying times. Dry thickness must be approximately 23.0 mils, weight: 17.0 lbs/100 sq ft., the rate is 1.5 gallons per 100 sq ft.

ROUGH AND GRANULATED SURFACES

With a prior application of a THERMOTEK™ SILICONE PRIMER over the entire surface, apply one coat of THERMOTEK™ X99 SILICONE at a rate of 2 gallon per 100 sq ft, then allow to dry at a temperature equal to or greater than 55°F (13°C) a minimum of 8 hours and no more to 72 hrs (or until it can be safe to walk on). Product is moisture cure, which means low humidity will result in longer drying times. Dry thickness must be approximately 30.8 dry mils, weight 22.7 lbs/100 sq ft.

Coat ALL surfaces including expansion joint covers and flashings, if the neoprene sheet flashing is not used extra material will be required at all edges and penetrations. *NOTE: for more information about the installation verify the application guide.*

PRODUCT LIMITATIONS

THERMOTEK™ X99 SILICONE does not generate a vapor barrier, whence it shall not be used for continuous water immersion, in the interior of water cryogenic tanks or to the exterior of refrigerated tanks.

PONDING WATER

THERMOTEK™ X99 SILICONE offers a powerful ponding water resistance. The NRCA considers ponding water on any roof as undesirable, and recommends that all roof systems are designed and built to ensure positive drainage. *NOTE: For detailed information read the NRCA Roofing and Waterproofing Manual.*

CAUTION:

THERMOTEK™ X99 SILICONE should not be applied at temperatures below 40°F (4.5°C) or if rain is expected within 1 to 4 hours after the application. The required cure time could vary depending on humidity and temperatures (low temperatures increase the curing time). NOTE: For better energy savings, the roof must be cleaned yearly, refer the MSDS for further information.



PROPERTIES

- Excellent resistance to degradation caused by UV rays
- Excellent water repellency.
- Excellent adhesion to many substrates as Polyurethane Sprayed Foam, FRP, etcetera.
- High resistance to heat, cold, chemicals, solvents, rain, snow and pollutants in the air.
- Ponding water resistance.

COVERAGE

Depending on specifications, warranty and type of surface it will cover on:

- SMOOTH SURFACES - 1.50 gallon per 100 square feet
- ROUGH AND GRANULATED SURFACES- 2 gallon per 100 sq ft.

PACKAGING

5-gal bucket and 55-gal drum.

CLEAN UP

Clean application tools and equipment with 100% Pure Mineral Spirit. **DO NOT USE WATER OR RECLAIMED SOLVENTS.**

STORAGE

Store the container at a temperature below 75°F (24°C), keep it closed in cool, dry, protected areas, away from freezing. Shelf life is six months.

We as THERMOTEK GROUP guarantee that since our products are shipped from the production plant they will be free of manufacturing defects; all the recommendations contained herein follow tests we consider as reliable and are subject to change without prior notice. THERMOTEK GROUP does not assume any responsibility for coverage, performance or injuries resulting from storage, handling or use of our products. Liability, if any, is limited to product replacement, to the terms stated within the executed warranty. TDS V4 - 2016.04

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