



# THERMO-SIL™ 2200

## TECHNICAL DATA SHEET

### Silicone Roof Coating

#### Product Use and Design

Thermo-Sil™ 2200 Series Silicone Roof Coating is a single-component, moisture curing silicone rubber roof coating system designed for use on existing smooth surface BUR, granulated cap sheet, well-adhered acrylic coating, concrete, metal, sprayed-in-place polyurethane foam and various single-ply membrane roofing. Thermo-Sil™ 2200 Series Silicone Roof Coating is designed to withstand the damp heat and ultra-violet rays of humid environments.

Thermo-Sil™ 2200 Series Silicone Roof Coating is used as a protective coating over polyurethane foam.

Product Characteristics		
Standard Colors:	TS 2201 – WHITE   TS 2202 – TAN   TS 2203 – LIGHT GRAY   TS 2204 – DARK GRAY	
Cool Roof Rating Council (CRRC) Product ID:	(2200 White) - 0770-0008	
Radiative Properties: (2200 White)	Solar Reflectance - Initial: Thermal Emittance - Initial:	0.87 0.90
Solar Reflective Index:	SRI - Initial: SRI - Aged:	110
Cure Time:	1-3 hours	
Tack Free Time:	10-20 minutes	
Recoat Window:	2-4 hours	

#### Application Equipment

Due to the high viscosity of the material, a high-pressure airless sprayer capable of producing a minimum of 3500 PSI at the spray gun head should be used. The pump should have a minimum of 3 gallons per minute output rate. Always use components rated for pump pressure. Hoses should be BUNA-N jacketed for prevention of moisture contamination. Hoses should have a minimum I.D. of 3/4" and an adequate working pressure. The spray gun should be high pressure (5000 PSI) with reverse-a-clean spray tip, having a minimum orifice of .030 and a 50° fan tip. Thinning of this material is not recommended. For question regarding thinning to this material please contact a Huntsman Building Solutions Sales Representative or Technical Services for additional information.

Contact Huntsman Building Solutions Technical Service personnel for specific recommendations, pricing and availability of spray and auxiliary equipment.

#### Processing Parameters

Thermo-Sil™ 2200 Series Silicone Roof Coating is a single-component, moisture curing silicone rubber roof coating which will freeze and become unusable at temperatures below 32°F. PROTECT FROM FREEZING DURING SHIPMENT AND STORAGE. Do not store material at temperatures below 50°F. Do not apply Thermo-Sil™ 2200 Series Silicone Roof Coating when ambient air and substrate temperatures fall below 50°F or when there is a possibility of temperature dropping below 32°F within a 24-hour period after application.

Physical Properties		
Properties	Test Method/Requirements	Value
Tensile Strength:	ASTM D 412	551psi (±25)
Elongation:	ASTM D 412	186% (±10)
Hardness (Shore A):	ASTM D 2240	70
Permeability:	ASTM E-96	7.9 U.S. Perms @ 20mils
Solids by Weight:	ASTM D 1644	82.44%
Solids by Volume:	ASTM D 2697	68.9% (±2)
Weight per Gallon:	ASTM D1475	10.90
Theoretical Coverage:	10-12 dry mils	1.25 gallon
Viscosity (cps):	ASTM A 2196	14,000 - 16,000
Volatile Organic Compounds:		246 grams per liter
Flash Point:		106°F

## Credentials/Certifications

- Underwriters Laboratories Inc. (UL 790) Rated
- Cool Roof Rating Council (CRRC) Rated

## Surface Preparation & Priming

Thermo-Sil™ 2200 Series Silicone Roof Coating may be applied by medium nap rollers, brushes, or by conventional or airless spray equipment. Airless spray application is most efficient whereas rolling or brushing may be best for touch-up, flashing and edge terminations or to fill voids, pinholes, holidays or cracks. Apply Thermo-Sil™ 2200 Series Silicone Roof Coating only to clean, dry, sound surfaces, free of loose particles or other foreign matter. Apply only to roofs that have adequate positive drainage (i.e. a minimum slope of 1/8 inch per foot). This product is not intended for areas where ponding water might occur.

## Product Application

It is recommended that Thermo-Sil™ 2200 Series Silicone Roof Coating be sprayed in multiple coats applied in multi-directional (north-south, east-west) passes to insure uniform film build. Backrolling sprayed material may be necessary to fill pinholes in substrate. Final cured dry film thickness must be free of voids, pinholes, holidays, cracks or blisters.

Apply in a minimum of 2 coats with each coat at a maximum rate of 1.25 gallons per 100 square feet, for a total nominal coating rate of 2.5 gallons per 100 square feet. Additional coats of 1.25 gallons maximum per 100 square feet may be applied to obtain the desired final thickness of coating. The minimum allowable dry mil thickness shall be no less than 18 mils. Granules may be broadcast into the final coating application at a rate of 35 – 40 pounds per 100 square feet. No foot traffic shall be permitted on the finished coated surface for 24 - 72 hours depending on curing conditions after application.

## Product Handling:

Some separation may occur during shipment and storage, therefore the contents of each container should be thoroughly power mixed for ten (10) to fifteen (15) minutes before application. Product should never be thinned.

## Maintenance:

The life of the roof may be extended by regularly scheduled maintenance. A roof should typically be inspected at least twice a year. The roof immediately needs to be inspected following severe weather and extraordinary maintenance on roof-mounted equipment.

**Clean Up:** Uncured silicone coating can be cleaned or equipment can be flushed with VM&P Naphtha or Mineral Spirits.

## Limitations

Do not apply over wet substrates or when inclement weather is imminent. Total cure of Thermo-Sil™ 2200 Series Silicone Roof Coating requires complete evaporation of carrier. Cool temperatures and high humidity retard cure. Do not apply if climatic conditions prevent complete cure before rain, dew, or freezing temperatures. Thermo-Sil™ 2200 Series Silicone Roof Coating is not a vapor barrier coating and not recommended for use over most cold storage installations. Where a vapor barrier is required, contact Huntsman Building Solutions Technical Service Personnel for proper selection and installation procedures.

**SHELF LIFE:** 12 months from manufactured date when stored properly.

**Packaging:** U.S. MEASURES: 5-gal. pails, 55-gal. drums & 275-gal. totes. WEIGHT PER U.S. GALLON: 11.65 lbs.

## General Health & Safety Precautions

This product is intended for use by trained professional personnel. Safety Data Sheets are available and any individual who may come in contact with these products should read and understand the S.D.S. In case of emergency contact CARECHEM EMERGENCY NUMBER at (866) 928-0789.

**WARNING:** Avoid eye contact with the liquid or spray mist. Applicators should wear protective clothing, gloves and use protective equipment on face, hands and other exposed areas.

**EYE PROTECTION:** Safety glasses, goggles, or a face shield are recommended. **SKIN PROTECTION:** Chemical resistant gloves are recommended. Cover as much of the exposed skin area as possible with appropriate clothing. **RESPIRATORY PROTECTION is MANDATORY!** Respiratory protective equipment, impervious foot wear and protective clothing are required at all times during spray application. Contact Huntsman Building Solutions for a copy of the Respiratory Protection Program developed by OSHA. **INGESTION:** Do not take internally. Consider the application and environmental concentrations in deciding if additional protective measures are necessary.

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