



Enduris™ 3525 Silicone Roof Coating

Product Description

GE Enduris 3525 silicone roof coating is a high performing protective barrier used for a variety of architectural surfaces and roofing substrates. Upon cure, Enduris 3525 silicone roof coating forms a durable, breathable and waterproof roofing membrane that is highly resistant to degradation from heat, cold, UV light, and natural weathering.

Key Features and Typical Benefits

- **Silicone Durability**—Cured silicone rubber exhibits excellent long-term resistance to natural weathering, including extreme temperatures, ultraviolet radiation, rain, and snow.
- **Low VOC, Low Odor Formula**—High solids formulation has low Volatile Organic Compounds content that is well below the limits of California's Air Quality Management Districts.
- **Ease of Use**—Enduris 3525 silicone roof coating is a single component material that requires no mixing of separate components, and can be applied with common airless equipment, roller or brush.
- **High Build Formulation**—Allows for single coat application that hangs on to sloped surfaces without sagging.
- **Storage & Shelf Life**—Enduris 3525 silicone roof coating can be stored in unheated warehouses during cooler months without the risk of freezing. Shelf life is 24 months from date of manufacture when properly stored.
- **Wide range of application temperature**—Enduris 3525 can be installed in temperatures below freezing and above 100°F (38°C)

Potential Applications

Enduris 3525 silicone roof coating can be applied to itself as well as a variety of clean, structurally sound roofing materials and substrates including: aged single ply membranes (TPO, PVC, EPDM, and CSPE), spray-applied polyurethane foam, acrylic coatings, asphaltic substrates such as modified bitumen, BUR and cap sheet, metal, concrete, and common parapet/coping materials. Asphaltic substrates may require Enduris Asphalt Bleed Blocker to prevent bleed through of asphaltic oils, however the use of the bleed blocker is not required. Perform an adhesion test on each surface type to verify adhesion.

Limitations

Enduris 3525 silicone roof coating should not be considered for:

- Use on pedestrian, deck or frequent traffic bearing surfaces.
- Cold storage roofing application without vapor barrier, or cryogenic tank applications.
- Unprepared surfaces including but not limited to those that are wet, dusty, oily, mildewed, heavily chalked, blistered or otherwise structurally unsound, have existing aluminized coating.
- Interior of storage containers or areas that will be under constant water or chemical immersion.
- Building materials that might bleed oil or solvents. These include, but are not limited to, certain vulcanized rubber products, tapes, failed sealants, some caulking compounds and asphaltic/mastic materials unless appropriate preparation or basecoats are used. Consult Momentive Performance Materials (MPM) technical services for base coat recommendations.
- Surfaces where adhesion has not been verified by testing.
- Enduris 3525 silicone roof coating requires atmospheric moisture for propagation of cure, thus it is not to be considered for use in totally confined spaces without proper ventilation during application and cure, and proper safety practices for confined spaces.

Packaging

Enduris 3525 silicone roof coating is currently available in the following containers:

Container size	Volume	Weight
5 gallon plastic pail	5 gallons, 18.9 liters	54 pounds, 24.5 kg
55 gallon chimed steel drum	50 gallons, 208 liters	540 pounds, 245.2 kg

Other packaging sizes may be available upon request.

Enduris 3525 Product Colors

Enduris 3525 silicone roof coating is currently available in white. Other colors can be supplied by special order.



Typical Physical Properties

Typical physical property values of Enduris 3525 silicone roof coating as supplied are set forth in the table below:

Property	Value ⁽¹⁾	Test Method
Solids Content, Volume	90	ASTM D1644-01 (Modified)
Tack-Free Time	45-60 minutes	ASTM D3960
Skin-Over Time	20-25 minutes	WPSTM C-560
Viscosity	15,000 cps	ASTM D2196
Tensile Strength	253 psi (1.74 MPa)	ASTM D2370
Elongation	550%	ASTM D2370
Durometer Hardness Shore A	36	ASTM D2370
VOC	<24 g/L	EPA Method 24
Permeance	5.2 perms	ASTM E96 (BW)
Tear Resistance	32 lbf/in.	ASTM D624
Low Temperature Flexibility	Pass	ASTM D522 (B)
Solar Reflectance – Initial	.85	ASTM C1549
Thermal Emittance – Initial	.89	ASTM C1371
SRI Value – Initial	107	ASTM C1549
Solar Reflectance – Aged ⁽²⁾	.76	ASTM C1549
Thermal Emittance – Aged ⁽²⁾	.90	C 1371
SRI Value – Aged ⁽²⁾	94	ASTM E1980

(1) Typical properties are average data and are not to be used as or to develop specifications.

(2) Accelerated aging test by QUV; independently tested, verified and reported.

Installation

Refer to Guide Specification for surface preparation requirements and design information.

Surface Preparation

Surfaces to which Enduris 3525 silicone roof coating is to be applied must be clean, dry, structurally sound and free of loose particles, dirt, dust, oil, frost, mildew and other contaminants. Damage to the underlying roof system, such as cracks, openings, holes, etc. should be properly repaired prior to application.

Saturated substrates must be removed and repaired appropriately.

Users of Enduris 3525 silicone roof coating should verify that suitable adhesion can be attained to all existing roofing materials to be coated prior to large scale application of the coating. It is recommended that a test patch be cleaned and coated with Enduris 3525 silicone roof coating to verify the effectiveness of the asphalt bleed blocking method and adhesion to the surface(s).

Application Guidelines

Enduris 3525 silicone roof coating should be applied as received; dilution with a solvent or power mixing is not recommended. If settling in the package has occurred, gently stir the material prior to use, taking care to not mix air into the material. Take appropriate precautions to cover open containers during use if the container will not be quickly or fully used, to minimize formation of skin. Enduris 3525 silicone roof coating should be sprayed or rolled ensuring uniform build and thorough coverage and is typically applied in one coat. If applying in

multiple coats, allow adequate time between each coat for the coating to cure. Final cured film thicknesses must be free of voids, pinholes, cracks or blisters. Care should be taken to avoid overspray onto adjacent building materials, vehicles, plants, etc. To control overspray, avoid spraying in winds that may cause drift. Surfaces not intended for coating should be masked or covered. Overspray can be cleaned up before it has cured by wiping alternately with solvent such as mineral spirits and dry rags. Cured material can be removed from surfaces with a razor blade, or scrubbed off with steel wool or synthetic abrasive pads and solvent.

Application Temperature and Weather

Enduris 3525 silicone roof coating can be applied throughout the year as long as the substrates being coated are completely dry. Frost and/or moisture can interfere with adhesion and result in delamination. Enduris 3525 silicone roof coating reacts with atmospheric moisture to cure. Lower temperatures will lengthen the skin over, tack free, and ultimate cure time, and may require an overnight cure in winter months to allow a topcoat application to proceed. Higher temperatures, even in dry desert conditions, will accelerate the cure rate and decrease the working time of the coating. Contact MPM if applying to substrates over 120°F (49°C).

Inclement weather may negatively affect uncured Enduris 3525 silicone roof coating by displacement of uncured material; therefore, application of coating should not proceed if heavy rain, hail or snowfall is impending or expected before the coating cures.

Application Thickness

Theoretical coverage rate of Enduris 3525 silicone roof coating is 14.4 mils (368 microns) dry mil thickness (Dry Film Thickness, DFT)/ gallon/100 square feet. Application rates and wet film thickness to achieve certain DFT are:

Application Rate	Wet Film Thickness	Dry Film Thickness
1½ gallons / 100 square feet (5.7 liters / 9.2 square meters)	24 mils (610 microns)	21 mils (533 microns)
2 gallons / 100 square feet (7.6 liters / 9.2 square meters)	32 mils (813 microns)	28 mils (711 microns)
2½ gallons / 100 square feet (9.5 liters / 9.2 square meters)	38 mils (965 microns)	36 mils (914 microns)

Coverage rates shown are approximate and do not include material losses during application. Moreover, certain surfaces may require additional coating or back rolling to achieve minimum dry millage requirements. Testing should be performed to determine actual coverage rate necessary to achieve desired dry film thickness. For use over new spray polyurethane foam a black, grey or tan basecoat (Enduris 3503, Enduris 3504, or Enduris 3505) at least 17 wet mils (432 microns) to achieve 15 dry mils (381 microns) must be installed over the foam within 6 hours of application of the foam and allowed to cure before application of the white silicone topcoat.



Installation—continued

Application Equipment

Enduris 3525 silicone roof coating can be applied by spraying, rolling or brushing. Enduris 3525 silicone roof coating works with most commercially available spray application equipment that can deliver a minimum of 3,300 psi at the spray tip for at least 2.2 gallons per minute. Always use components rated for the required pump pressure. Cleanup of spray equipment containing uncured material may be accomplished by flushing with mineral spirits or naphtha. DO NOT USE water or alcohol based solvents. As Enduris 3525 silicone roof coating cures by reacting with moisture, it should not be left in pumping equipment and hoses for prolonged periods unless equipment contains moisture lock hoses, fittings and seals. Equipment without moisture lock hoses, fittings and seals may transmit sufficient moisture vapor to gradually form cured material on interior of hose wall surfaces and at unsealed connections. This can cause increased operating pressures and flow restrictions.

Application Coating Vertical Surfaces

Enduris 3525 silicone roof coating can be installed on parapets and walls associated with the roofing system. When coating other vertical wall surfaces, GE SilShield™ architectural coatings is suggested. Contact an MPM representative for additional information.

Uncured Product Storage

Enduris 3525 silicone roof coating should be stored in sealed containers in a dry area, out of direct sunlight and high heat. Do not open containers until ready for use and store containers at or below 109°F (43°C) to maintain full shelf life. Enduris 3525 silicone roof coating can generally be stored in unheated warehouses during the cooler months without the risk of freezing. Once containers are open and exposed to the atmosphere, a skin will form on the material over time. Cured skin that has formed on the top of the material must be removed or screened from the bulk material, when the container is reopened after a period of storage.

Applicable Standards

- **ASTM D6694**—Standard Specification for Liquid-Applied Silicone Coating Used in Spray Polyurethane Foam Roofing Systems. Result: Pass
- **Cool Roof Rating Council (CRRC)**—Rated Product ID 1200-0005. Enduris 3525 roof coating (white) only.
- **UL 790**—UL 790-Flammability Characteristics—Enduris 3525 silicone roof coating carries Class A credentials as tested under UL 790 procedures over various substrates. Refer to UL report TGFU.R5346 for specific information.

- **Miami-Dade NOA**
- **California Title 24 Compliant**—Can be used to comply with Title 24, Part 6 (only applies to Enduris 3525 white coating).
- **FM Global—FM4470**

Technical Services

For additional technical resources, please contact your local customer service center. (See Customer Service Centers section herein for contact information.) Any technical advice furnished by Momentive Performance Materials (MPM) or any representative of MPM concerning any use or application of any MPM product is believed to be reliable, but MPM makes no warranty, expressed or implied, of suitability for use in any application for which such advice is furnished.

Limitations

Customers must evaluate MPM products and make their own determination as to the fitness of use in their particular applications.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.



Product Safety, Handling and Storage

Customers considering the use of this product should review the latest Safety Data Sheet and label for product safety information, handling instructions, personal protective equipment if necessary, and any special storage conditions required. Safety Data Sheets are available at www.gesilicones.com or, upon request, from any MPM representative. Use of other materials in conjunction with MPM sealants products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.



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For additional information, please contact our Customer Service Team

AMERICAS	+1 800 295 2392 Toll Free* +1 704 805 6946 Direct Number
LATIN AMERICA	BRAZIL +55 11 4534 9650 Direct Number MEXICO +52 55 2169 7670 Direct Number *All American countries
EMEA – EUROPE, MIDDLE EAST, AFRICA & INDIA	EUROPE +390510924300 Direct Number INDIA, MIDDLE EAST & AFRICA +91 44 71212207 Direct Number* *All Middle Eastern countries, Africa, India, Pakistan, Bangladesh, Sri Lanka
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