TECHNICAL DATA SHEET



CONSTRUCTION SILICONE SEALANT

HM270

MEDIUM MODULUS ±25% JOINT MOVEMENT

Description: OSI HM270 Construction Silicone Sealant is a medium modulus, one-part RTV silicone sealant designed for glazing and sealing. It cures at room temperature upon exposure to moisture in the air providing good tensile strength and excellent adhesion, usually without the use of a primer, to most non-porous building materials. OSI HM270 easily withstands temperature extremes from -76°F to 350°F without adverse effects. It is highly resistant to ultraviolet light and is virtually unaffected by other harsh environmental elements. OSI HM270 offers superior elasticity and long-life reliability. It forms a permanent watertight and weatherproof bond to materials like glass, ceramics, aluminum, primed steel and some plastics.

Available As:

Item #	Size	Color
1493959	10 fl oz (295 ml)	Black
1493960	10 fl oz (295 ml)	White
1494045	10 fl oz (295 ml)	Clear

Features & Benefits:

- For Non-Porous Materials
- Water-Resistant & Weather-Proof
- Permanently Flexible, +/- 25% Joint Movement
- Easy Extrusion in Any Weather

Recommended For:

OSI HM270 is primarily used for structural or conventional type glazing and curtain wall sealing involving glass, plastic or metal. For general usage, OSI HM270 has many applications including sealing skylights, solar panels, ventilators, aluminum siding and windows, heating/air conditioning units, duct work, recreational vehicles, and other glass, plastic or metal assemblies.

For Best Results:

Not recommended for the following applications:

- Use with concrete, marble, brass, copper, oily woods, limestone, brick, lead surfaces, polyethylene, polypropylene, polytetrafluoroethylene (PTFE) and other related materials
- Joints subject to continuous water immersion (i.e. swimming pools, boats, etc)
- Horizontal joints or traffic bearing joints where abrasion resistance is required (i.e. walkways, driveways, runways, etc)
- Applications in totally confined or air-free spaces
- Sealing green or vulcanized rubber
- Use with potable water systems
- Direct contact on the reflective coatings on mirrors
- Applications requiring painting (paint will not adhere to silicone)

Coverage:

For a 10 fl. oz. (295 mL) cartridge:

- A 1/4” (6 mm) bead extrudes approximately 31 ft. (9.5 m)
- A 3/8” (9.5 mm) bead extrudes approximately 14 ft. (4.2 m)

Typical Uncured Physical Properties:

Color:	Various	
Appearance:	Lump-free paste	
Base:	One-part, acetoxy, moisture-curing silicone rubber	
Odor:	Mild	
Specific Gravity:	1.01	
Flashpoint:	>200°F (93°C)	
VOC Content:	3% by weight	CARB
	30 g/l	SCAQMD rule 1168
Shelf Life:	24 months from date of manufacture (unopened)	
Lot Code Explanation:	**YY/DDD**	
Stamped on top body side of cartridge	**YY =** Last two digits of year of manufacture **DDD =** Day of manufacture based on 365 days in a year	
	For example: 14/061 = 61st day of 2014 = March 2, 2014	

Typical Application Properties:

Application Temperature:	Apply between -30°F (-34°C) and 110°F (45°C)	
Skin Time:	5-10 minutes*	At 73°F and 50% relative humidity
Tack-Free Time:	< 25 minutes*	
Cure Time:	24 hours*, per 4 mm depth of sealant	
	*Time is dependent on temperature, humidity, porosity of substrate and depth of sealant applied	
Full Adhesion Development:	14 days	
Sag or Slump:	Nil	ASTM C639

Typical Cured Performance Properties:

Color:	Various	
Cured Form:	Non-flammable solid	
Service Temperature:	-76°F (-60°C) to 350°F (177°C) -76°F (-60°C) to 392°F (200°C)	Long-Term Exposure Short-Term Exposure
Water Resistant:	Yes, when fully cured	
Paintable:	No, silicones do not accept paint	
Hardness:	18	Shore A
Elongation at Break:	>350%	ASTM D412 Die C
Tensile Strength at Break:	>170 psi	ASTM D412 Die C
Joint Movement Capability:	± 25%	After 14 days
180° Peel Adhesion:		ASTM D903
Aluminum to Stainless Steel	14 pli	
Specifications:	Meets the performance requirements of the following: • ASTM C920 Type S, Grade NS, Class 25, Use NT • Fed. Spec TT-00230C Type II • Fed. Spec. TT-S-001543A	

Directions:

Tools Typically Required:
Utility knife and caulking gun. For best application results, OSI® recommends the use of a high quality caulking gun such as the Albion® B12 Cartridge Gun.

Safety Precautions:
Wear gloves. Wash hands after use. Use with adequate ventilation.

Preparation:
Apply sealant between -30°F (-34°C) and 110°F (45°C). All surfaces must be clean, dry and free of old caulk, grease, dust and other contaminants. Remove nozzle from cartridge and cut cartridge tip. Replace the nozzle and insert cartridge into caulking gun. Cut the tip off the nozzle at a 45° angle to desired bead size (3/8" is recommended). For a neat sealant line, tape both sides of the joint using masking tape.

Surface Preparation:
Priming is not required for glass surfaces. However priming may be required for certain metals such as anodized and mill finish aluminium, stainless and carbon type steels, and certain acrylic, polycarbonate or PVC plastics. A test application is always recommended prior to general use. Prepare surfaces as follows:

1) Wipe metal, glass and plastic surface using mechanical abrasion or commercial grade solvents such as xylol, toluene or alcohol. Caution: Follow manufacturer's precautions when using volatile solvents.
2) Solvent may be applied in temperatures as low as -30°F (-34°C) providing the surfaces are clean, dry and free of frost.

Install all backing materials as specified or required before proceeding with the sealant application.

Sealant beads should not be thicker than ½" (12.7 mm) or thinner than 1/8" (3.2 mm) using a width-to-depth ratio of 2:1.

Deep Joints: Use open cell polyurethane foam backer rod as a backing material to obtain the proper width-to-depth ratio.
Shallow Joints: Use polyethylene bond breaker tape for joints too shallow to accommodate foam backer rod.

Application:
Using a caulking gun, apply sealant with steady pressure, forcing the sealant into the joint. If the depth of the joint exceeds 3/8" (9.5 mm) the use of a backer rod is recommended. Sealant should be tooled within 5 to 10 minutes after application. Do not use soapy water or oil as a tooling aid. Immediately remove any masking tape after tooling sealant.

Clean-up:
Clean tools and uncured sealant residue immediately with mineral spirits or paint thinner. Cured sealant must be carefully cut away with a sharp-edged tool.

Storage & Disposal:

NOT DAMAGED BY FREEZING. Store in a cool, dry place at temperatures not greater than 90°F (32°C). Dispose of unwanted product in accordance with state, local and federal regulations. Hardened material may be disposed of as non-hazardous trash.

Label Precautions:

WARNING! UNCURED SEALANT IRRITATES EYES, SKIN AND RESPIRATORY TRACT. PROLONGED OR REPEATED CONTACT WITH SKIN MAY CAUSE ALLERGIC REACTION.

WARNING! Contains acetoxysilanes and petroleum distillate. Contact with uncured sealant causes eye, skin and respiratory irritation. Prolonged or repeated skin contact with uncured sealant may cause allergic skin reaction. Use with adequate ventilation. Acetic acid, which irritates eyes and respiratory tract, is released during curing. Do not get in eyes or on skin or clothing. Remove contact lenses before using sealant. Wash hands after using. Do not swallow. **FIRST AID:** In case of skin contact wipe off and wash with soap and water. In case of eye contact flush with water for 15 minutes, call a physician immediately. In case of respiratory difficulty, remove to fresh air. Call a physician if symptoms develop or persist. If swallowed, do not induce vomiting; call physician or Poison Control Center. **KEEP OUT OF THE REACH OF CHILDREN.**

WARNING: This product contains a chemical known to the State of California to cause cancer. (For black product)

Refer to the Safety Data Sheet (SDS) for further information.

Limited Warranty:

This product is warranted to be free from defects in materials when used as directed. Henkel's sole obligation shall be, at its option, to replace or refund the purchase price of product proven to be defective. Henkel makes no other warranty, express or implied, including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE and will not be liable for consequential or incidental damages. This limited warranty gives you specific legal rights, which vary from state to state. Henkel may be contacted at 1.800.624.7767 M-F 9:00 am to 4:00 pm ET for warranty assistance.

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OSI works side by side with residential builders, contractors and remodeling professionals who use our products everyday on their jobsites. OSI combines this deep understanding with the sophisticated global innovation and manufacturing excellence of Henkel to make the world's best professional-grade caulks, sealants and adhesives.

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Revision Date: 03/03/2015 Supercedes: 07/31/2014 Ref. #: 210384 Post Date: 07/31/2014

This document was created and digitally signed by tdx.henkel.com at 2025-11-27T10:26:19.374Z