



TECHNICAL DATA SHEET



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DESCRIPTION

OSI® HM-270™ is a high 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. HM-270™ easily withstands temperature extremes from -60°F to 400°F without adverse effects. It is highly resistant to ultraviolet light and is virtually unaffected by other harsh environmental elements. HM-270™ 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.

Picture
unavailable.

RECOMMENDED FOR:

HM-270™ is primarily used for structural or conventional type glazing and curtainwall sealing involving glass, plastic or metal. For general usage, HM-270™ 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.

NOT RECOMMENDED FOR:

- Use with concrete, marble, oily woods, limestone, brick, lead surfaces and vinyl
- 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
- Applications requiring painting (Paint will not adhere to silicone)

Item #	Size	Packaging	Color
1131897	10.2 Oz.	Plastic Cartridge	Clear
1131899	10.2 Oz.	Plastic Cartridge	White
1131895	10.2 Oz.	Plastic Cartridge	Black
1131923	10.2 Oz.	Plastic Cartridge	Browns
1131925	10.2 Oz.	Plastic Cartridge	Browns
1131926	10.2 Oz.	Plastic Cartridge	Tan
1131924	10.2 Oz.	Plastic Cartridge	Grey

FEATURES & BENEFITS:

Feature	Benefits
100% Silicone rubber.....	Solvent-free
Withstands moderate expansion-contraction cycles.....	Permanently flexible; Will not crack or split even over temperature extremes
Durable and Water-resistant.....	Long-lasting, professional finish; Great for outdoor applications
Available in a variety of colors.....	Manufactured to match most siding colors

COVERAGE

For a 10.2 fl. oz. (302 mL) cartridge:
A ¼" (6 mm) bead extrudes approximately 31 ft. (9.5 m).
A 3/8" (9.5 mm) bead extrudes approximately 14 ft. (4.26 m).

DIRECTIONS

Tools Typically Required:

Utility knife and caulking 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:
 - 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.
 - 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 1/2" (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 AND 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.

PRECAUTIONS

CAUTION! Contains acetoxysilanes and petroleum distillates. Prolonged or repeated contact with uncured sealant causes eye, skin and respiratory irritation. 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. **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 and call physician if symptoms develop or persist. If swallowed, do not induce vomiting; call physician or Poison Control Center. **DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN.**

Refer to Material Safety Data Sheet (MSDS) for further information.

DISCLAIMER

The information and recommendations contained herein are based on our research and are believed to be accurate, but no warranty, express or implied, is made or should be inferred. Purchasers should test the products to determine acceptable quality and suitability for their own intended use. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

TECHNICAL DATA

Typical Uncured Physical Properties		Typical Application Properties	
<u>Color:</u>	Various colors	<u>Application Temperature:</u>	Apply between -30°F (-34°C) and 110°F (45°C)
<u>Appearance:</u>	Smooth Paste	<u>Tooling Time:</u>	5 to 10 minutes
<u>Base:</u>	One-part, Acetoxy, Moisture Curing, Silicone Rubber	<u>Tack-Free Time:</u>	Up to 2 hours
<u>Specific Gravity:</u>	1.0	<u>Cure Time:</u>	24 hours @ 75°F (167°C) per 4mm depth of sealant (Cure time is dependent upon temperature, humidity and depth of sealant applied.)
<u>Flash Point:</u>	> 200°F (95°C)	<u>Full Adhesion Development:</u>	14 days, 3/8" bead
<u>VOC Content:</u>	< 32 g/L (< 4% by weight)		
<u>Shelf Life:</u>	24 months from date of manufacture (unopened)		
<u>Lot Code Explanation:</u>	YY / DDD YY = Last two digits of Year of Manufacture DDD = Day of Manufacture based on 365 days in one year For example: 09061 = 61 st day of 2009 = March 2, 2009		
(Lot code is printed on top of cartridge body on side panel)			

Typical Cured Performance Properties

<u>Color:</u>	Clear, White, Black, Tan / Beige, Brown & Gray	<u>Service Temperature:</u>	Intermittent: -60°F (-51°C) to 400°F (204°C) Continuous: -10°F (-23°C) to 250°F (150°C)
<u>Hardness, Shore A:</u>	20	<u>Paintable:</u>	No
<u>Elongation:</u>	500%	<u>Water Resistant:</u>	Yes, when fully cured.
<u>Joint Movement Capability (14 days):</u>	± 25%	<u>Specifications:</u>	<ul style="list-style-type: none"> ▪ Federal Spec. TT-S-00230C (COM-NBS) Type II, Class A ▪ Federal Spec. TT-S-001543A (COM-NBS) Class A ▪ ASTM C920: Type S, NS, NT
<u>Tensile Strength:</u>	250 psi		
<u>180° Peel Adhesion:</u>			
Glass	10 pli		
Aluminum	10 pli		