

Metal Silicone 2* Sealant

Product Description

Metal Silicone 2 sealant is 100% waterproof and ideal for sealing metal substrates and weatherproofing. This high performance and durable sealant offers a fast cure and can be exposed to rain or water in as little as 30 minutes. Metal Silicone 2 sealant is permanently flexible, shrink-proof, and crack-proof. It offers strong adhesion to metal substrates and will not blemish most metal finishes. It can be applied to either wet or dry surfaces, is sun-proof and freeze-proof, and will not breakdown or wash away. Backed by a lifetime guarantee.

Product Attributes

- Fast cure: 30-minute tack free and 24-hour full cure⁽¹⁾
- 30-minutes rain and water exposure⁽¹⁾
- 100% weatherproof, freeze-proof and sun-proof, will not degrade in harsh climates
- Meets ASTM C-920 Class 25 specifications
- Permanently flexible to keep gaps sealed, shrink-proof and crack-proof
- Will never break down due to extreme weather conditions
- Resist mold⁽²⁾ with 10-year mold-free product protection
- Excellent adhesion for wet or dry applications⁽³⁾
- Will not blemish high-end metal finishes such as chrome, bronze and nickel
- Neutral curing sealant adheres to more surfaces including most metals, aluminum, and stainless steel
- Freeze/thaw stability
- Non-paintable



(1) 30-minute tack free time, 24-hour full cure and exposure to rain or water possible in as little as 30 minutes with bead size max $\frac{3}{16}$ ", temperature min 65°F and humidity min 50%. Otherwise, sealant should not be exposed to water for 8 hours. Do not touch or clean caulk for 24 hours

(2) Cured sealant is resistant to stain-causing mold & mildew. Regular cleaning of sealant is required, however, as soap and other residue can cause secondary mold and mildew growth

(3) For wet surface application, wipe off excess water before applying

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Basic Uses

Metal Silicone 2* sealant is used in a wide variety of applications including, but not limited to steel sheds, metal roofs, trailers, recreational vehicles, gutters, windows, doors, siding, trim, vents, pipes and other metal surfaces.

Adheres To

Common building materials including most metals, stainless steel, aluminum, copper, composites, brick, stone, stucco, concrete, cement, masonry, cement board, most woods, glass, porcelain, ceramic tile, drywall, plaster, vinyl siding, PVC, fiberglass, and painted surfaces. Excellent for most metal finishes such as chrome, bronze & nickel.

Metal Silicone 2 sealant should not be considered:

- For structural repairs
- For use underwater or in other applications where the product will be in continuous contact with water
- For use in food contact applications
- When painting of the cured sealant is desired
- For use on aquariums
- For use on surfaces with special coatings, such as mirrors, without approval of the article's manufacturer
- Under exceedingly hot or cold conditions (see Sealant Application section for additional information)
- On frozen or contaminated surfaces
- On excessively basic or acidic substrates
- For use on surfaces that are above 120°F (49°C)

Packaging

Metal Silicone 2 sealant is currently available in 10.1 fl. oz. (299 mL) plastic caulking cartridges and 2.8 fl. oz. (82.8 mL) plastic squeeze tubes. Plastic cartridges and squeeze tubes are packaged as 12 units in cardboard boxes. Cartridges are dispensed using a single component hand or air-pressured caulking gun.

Metal Silicone 2 Sealant

Stock #	Model #	Color	Product UPC	Size	Carton Size	Coverage (3/16" bead)
GESIL2METAL	GE5050	Metallic Gray	077027050509	10.1 fl. oz	12 each	51 Linear Feet
SIL2METAL	GE285	Metallic Gray	077027002850	2.8 fl. oz	12 each	13 Linear Feet



Metallic Gray

Typical Properties

Typical physical property values of Metal Silicone 2* sealant as supplied and cured are set forth in the tables below.

Typical Properties Information – Supplied

Property	Value	Test Method
Consistency	Paste	
VOC (ex. water & exempt)	< 28 g/L	WPSTM C1454
CARB Chem Curing (n.a.) VOC	< 3.0 wt%	
Odor	Light Ammonia	
Work Life (tooling time)	5-10 minutes	
Tack Free Time (@ 72°F (22°C), 50% RH)	30 minutes	ASTM C679
Rain-Ready	30 minutes	
Sag/Slump	< 0.2 inches	ASTM D2202

Typical Properties – Cured

Property	Value	Test Method
Hardness, Durometer (Type A Indenter)	15	ASTM D2240
Tensile Strength	145 psi	ASTM D412
Elongation	347%	ASTM D412
Specific Gravity	1.00	
Joint Movement Capability	±25%	ASTM C719
Service Temperature Range (after cure)	-60°F to +400°F (-51°C to 204°C)	
Weathering and U.V. Resistance	Excellent	30 year Study
Full Cure Time	24 hours	

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

Surface Preparation

- Surfaces must be clean, dry and sound prior to application of the sealant. All contaminants, impurities, or other adhesion inhibitors (such as moisture/frost, oils, old sealants, soaps and other surface treatments, etc.) must be removed from the surfaces to which the sealant is intended to adhere.
- For cleaning, a solvent-dampened clean rag usually produces the desired result. Isopropyl Alcohol (IPA) is a commonly used solvent and has proven useful for most non-porous substrates. When handling solvents, refer to manufacturer's SDS for information on handling, safety and personal protective equipment.
- Architectural coatings, paints and plastics should be cleaned with a solvent approved by the manufacturer of the product or which does not harm or alter the finish.
- Since porous materials can absorb and retain moisture, it is important to confirm that substrates are dry prior to application of the sealant.
- Cleaning of surfaces should be done within 1 to 2 hours of when the sealant is to be applied.

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Masking

The use of masking tape is recommended where appropriate to ensure a neat job and to protect adjoining surfaces from over-application of sealant. Masking tape should be removed immediately after tooling the sealant and before the sealant begins to skin over (tooling time).

Method of Application

Metal Silicone 2* sealant is easily dispensed from cartridges using standard caulk guns or air operated guns. Maximum recommended pressure for air operated guns is 45 psi (3.2kgs/cm²). Mixing, heating and refrigeration not required.

Instructions

1. Remove dirt, grease, moisture, soap residue & old caulk from area to be sealed. Use backer rod for gaps larger than 1/2" X 1/2" (12.7mm x 12.7mm)⁽¹⁾.
 2. Cut nozzle to obtain desired bead size.
 3. PIERCE INNER FOIL SEAL.
 4. Using caulk gun, apply sealant into gap. Smooth the sealant into gap.
 5. Wipe hands & tools thoroughly before washing.
 6. Allow a minimum of 30 minutes before exposing sealant to water.
- (1) Sealant depth should be controlled with a closed cell, non-gassing type backer rod. Backer rod should be slightly larger in diameter (25 to 50%) than the joint width.

Sealant Application

- Apply sealant in a continuous operation applying a positive pressure adequate to properly fill and seal the seam, cavity or joint.
- Tool or strike the sealant with a concave tool, applying light pressure to spread the material against the joint surfaces to ensure a void-free application.
- When tooling, use care not to spread the sealant over the face of the substrates adjacent to the joint or masking as the silicone can be extremely difficult to remove on rough or porous substrates. Excess sealant should be cleaned from glass, metal and plastic surfaces while still uncured. On porous surfaces the excess sealant should be allowed to progress through the initial cure or set-up. It should then be removed by abrasion or other mechanical means.
- If sealant is applied when the temperature is below 32°F (4°C) or if frost or moisture is present on the surfaces to be sealed, the rate of cure will slow. For standard cure speed, apply in temperatures above 32°F.
- The cure rate of this product is dependent upon temperature and the availability of atmospheric moisture. Under average conditions (relative humidity of 50 ±5% at an air temperature of 73.4 ±2°F [23 ±1°C]) this material can attain a cured thickness of 2-3 mm per 24 hours (assuming ample access to atmospheric moisture). As temperature decreases, the cure rate slows down (and vice versa). Low moisture environments will also reduce the cure rate. Near-confined spaces, which limit the overall access to atmospheric moisture, will cure only from that surface which has access to the atmosphere.

Note:

- This material requires atmospheric moisture to cure from paste to rubber and may not attain its listed final cured rubber properties when used in designs or applications where the silicone is encapsulated and without access to atmospheric moisture.
- Some materials that bleed plasticizers or oils can cause a discoloration on the surface of sealants. When sealing to or over items such as: rubberized gaskets, bituminous based materials, butyl or oil-based products, oily woods, tapes, etc., compatibility testing prior to use is recommended.
- Silicone materials are hydrophobic in nature and if inadvertently over-applied onto adjacent joint surfaces (even if removed immediately), can create a waterproofing effect of a substrate when the substrate is wet. See section on Masking.

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Specifications

Meets ASTM C-920, Type-S, NS, Class 25, Use NT, M, G, A & O Test Requirements.
Federal Specification TT-S-00230C, TT-S-001543A

Suggested References

In addition to the guidelines provided herein, Momentive Performance Materials recommends that designers and users of Metal Silicone 2* sealant familiarize themselves with the latest editions of following industry guidelines and best practices:

1.) ASTM C1193 Standard Guide for Use of Joint Sealants.

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.GEsealants.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.

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.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular application.

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