Technical Data Sheet

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Marine Silicone 1 Sealant

DESCRIPTION

GE branded Marine Silicone 1 Sealant is a 100% silicone sealant ideal for marine use or projects exposed to water or the elements. This silicone sealant offers a shrink and crack-proof seal for durable, long-lasting results on exterior and interior projects. It is 100% weatherproof, withstanding sun and frost, making for a sun-proof, freeze-proof seal.

Available as:

Item #	Country	Package	Size	Color
2798879	Canada	Squeeze Tube	82.8 mL (2.8 fl. oz.)	Clear

FEATURES & BENEFITS

- 100% Weatherproof, silicone formula is perfect for most projects exposed to water or extreme weather
- 7-Year Mold-Free Product Protection: cured sealant is resistant to stain-causing mold and mildew growth [2]
- Excellent flexibility and strong adhesion to provide a flexible, durable seal to most materials
- Same day rain-ready: ready for rain exposure in as little as 12 hours [1]
- Meets ASTM C-920, Class 25
- Lifetime guarantee
- Non-paintable

RECOMMENDED FOR

Marine Silicone 1 Sealant may be used on many common materials that include fiberglass, wood, metal, glass, and plastic [4]

LIMITATIONS

Should not be considered:

- Where painting of sealant is needed
- For use underwater or in other applications where the product will be in continuous contact with water
- For use in aquariums or potable water systems
- For use under shower door tracks, or as a spackling compound
- For use on porous materials such as concrete
- On frozen or contaminated surfaces
- Under exceedingly hot or cold conditions
- For structural repairs
- On excessively basic or acidic substrates
- For use on galvanized surfaces, high-end metal finishes, or special coatings, such as mirrors, without approval of the article's manufacturer

COVERAGE

For an 82.8 mL (2.8 fl. oz.) squeeze tube:

- A 3/16" (5 mm) bead extrudes approx. 4 m (13 ft.)
- A 3/8" (9.5 mm) bead extrudes approx. 1.1 m (3.7 ft.)

TECHNICAL DATA

Typical Uncured Physical Properties			Typical Application Properties	
Colors:	Clear/colorless**		Application Temperature:	Surface and ambient temperatures must be above 0°C (32°F) and below 49°C (120°F)
Appearance:	Non-slumping paste			
Base:	Acetoxy Silicone		Odor:	Acetic acid/ Vinegar
VOC Content:	3% by weight	CARB	Tooling / Open Time:	5-10 minutes*
	30 g/l	SCAQMD rule 1168	Skin Time / Tack Free:	30 minutes*
			Cure Time:	24 hours*
Shelf Life:	24 months from date of manufacture (unopened) **Use by date** is printed on cartridge		Clean Up:	Clean uncured sealant residue immediately using mineral spirits. Cut or scrape away cured sealant using a sharp-edged tool.

**At 23°C (73°F) and 50% relative humidity. Time is dependent on temperature, humidity, porosity of substrates and depth of sealant applied. Cure time is significantly increased in cold temperatures and/or low humidity conditions.*

***Clear/colorless is not descriptive of sealant transparency. Thickness of applied bead will impact clarity of the cured product.*

Typical Cured Performance Properties				
Colors:	Clear/colorless**		Service Temperature:	-51°C to 204°C (-60°F to 400°F)
Cured form:	Non-flammable, rubbery solid		Shore A Hardness:	25 ASTM D2240
Water Resistant:	Yes, 12-hour water ready [1]		Elongation at Break:	328% ASTM D412
Paintable:	No		Tensile Strength at Break:	213 psi ASTM D412
Movement Capability:	± 25%	ASTM C719		
Specifications:	Meets the performance requirements of: ASTM C-920, Type-S, Grade NS, Class 25, Use G test requirements			

[1] Exposure to water possible in 12 hours with bead size max ¼" (6.3 mm), temperature min 18.3°C (65°F) and humidity min 50%. Otherwise, sealant should not be exposed to water for 24 hours. Do not touch or clean sealant for 24 hours, or until fully cured.

[2] Fully 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 on surfaces.

[3] Based on ASTM C-920, TYPE-S, NS, CLASS 25 analysis, product can span gaps of up to 5/8" x 5/8" with over 328% elongation and 25% joint movement.

[4] Test on all materials, or in an inconspicuous area, before use in entire project

DIRECTIONS

Tools Typically Required:
Utility knife to cut nozzle opening.

Safety Precautions:
Wear gloves and wash hands after use.

Surface Preparation:

- The temperature of the product, any surfaces, and the working area must be above 0°C (32°F). For best performance, apply sealant at 21°C (70°F). It is recommended to store product at room temperature at least 24 hours before use during extreme cold weather conditions.
- Check "Use By" date on product container. If product is expired, do not use.
- All surfaces, including new construction, must be clean, dry, and sound prior to application of the sealant. All contaminants, impurities, or other adhesion inhibitors (such as old sealants, dirt, oils, soap residue, and other surface treatments, etc.) must be removed from surfaces to which the sealant is intended to adhere to. Surface preparation should be completed on the same day product is being applied, preferably within 1 – 2 hours before sealant is to be applied, to allow surfaces to dry.

  If existing UNCURED sealant needs to be removed:
  Remove (scrape, wipe, dig out, etc.) uncured sealant and then scrub the area with isopropyl alcohol (IPA)† to remove any remaining oily residue.

  If existing CURED / OLD sealant needs to be removed:
  Remove as much as possible by cutting/peeling/scraping excess caulk from the surface.
  For ceramic tile, marble, Formica®, fiberglass, etc.: use 100 percent mineral spirits (turpentine)† and a non-abrasive scouring pad. Test mineral spirits† on a hidden area of the surface to ensure discoloration will not occur. If discoloration does occur, contact the manufacturer of the surface for further assistance.
  For glass surfaces: carefully use a razor blade within a holder to remove as much as possible, then apply mineral spirits†. Remove excess with a towel or other suitable cleaning utensil that will not mark the surface (such as a nonabrasive pad).
  For hard plastics or painted surfaces: use rubbing alcohol† and a soft cloth. Do not use mineral spirits†.
  For porous/rough surfaces (concrete, brick, wood, wallpaper): remove as much of the sealant as possible (same as smooth surface). If necessary, use a wire brush in conjunction with mineral spirits†. We do not recommend use of a wire brush to remove sealant from wood surfaces, as doing so could damage the wood. Also, mineral spirits† should not be used if wood has any type of finish on it. Test solvent on a hidden area before applying.
  Special notes about silicone sealant: there is no substance that will dissolve silicone. If you are reapplying silicone to the area, remove the old sealant, and then clean the area as detailed below. If mold or mildew is present, apply rubbing alcohol†. Let the area dry before reapplying silicone.
- Surfaces which sealant is to be applied on need to be prepared properly. The following are guidelines for preparing a variety of surfaces:

  Metal, glass, and plastic: clean surface with a solvent such as mineral spirits† or a lacquer thinner†. When using solvents, always wipe the surface dry with a clean cloth or lintless paper towels. Never allow a solvent to air dry or evaporate without wiping. Isopropyl alcohol (IPA)† is a commonly used solvent that has shown to be effective with most non-porous substrates.

  Architectural coatings, paints, and plastics: Clean with a solvent† approved by the manufacturer of the product, or which does not harm or alter the finish.

  Note: cleaning surfaces with detergent or soap and water is not recommended as silicone will not adhere to surfaces with any soap scum/residue present.
- Some materials, such as concrete, soft woods, stone, specially treated metals, plastics, or other man-made materials, might have unpredictable surface characteristics which may affect adhesion properties. Therefore, we recommend testing for adhesion by applying the caulk/sealant to scrap materials, or a small area, before proceeding with an entire job.
- Some materials may cause discoloration on the surface of sealant/substrate. Compatibility testing prior to use is recommended.
- Use backer rod for gaps larger than 3/8" D x 3/8" W (9.5mm x 9.5mm). Sealant beads should not be thicker than ½" (12.7mm) or thinner than 1/8" (3.2 mm), using a width-to-depth ratio of 2:1.

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 (see Tooling / Open time).

DIRECTIONS

Application:

- Remove cap and cut nozzle to obtain desired bead size.
- Apply sealant in a continuous operation applying a positive pressure adequate to properly fill and seal the seam, cavity, or joint.
- Smooth or tool the sealant into gap within 5–10 minutes of application. Tool or strike the sealant with a clean and dry gloved finger or caulk finishing tool, applying light pressure to spread the material against the joint surfaces to ensure a void-free application. Do not over tool or tool too thin. Doing so will have a negative impact on sealant integrity and performance. Sealant skins over in approximately 30 minutes, depending on humidity and temperature.
- When tooling, use care not to spread the sealant over the face of the substrates adjacent to the joint or masking as Marine Silicone 1 Sealant can be extremely difficult to remove from rough or porous substrates. Excess sealant should be cleaned from glass, metal, and plastic surfaces while still uncured. On porous surfaces, 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.
- In near-confined spaces, which limit overall access to the atmosphere, sealant will cure only from that surface which has access to the atmosphere. Do not encapsulate sealant between two non-porous substrates.

NOTE:

- 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.
- If Marine Silicone 1 Sealant is applied when the temperature is below 0°C (32°F) 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 4°C (40°F).
- The cure rate of this product is primarily dependent upon temperature and the availability of atmospheric moisture. Under average conditions (relative humidity of 50% at an air temperature of 23°C (73°F)) 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.
- Users must evaluate GE branded products and make their own determination as to fitness of use in their specific application. It is the user's responsibility to test substrate compatibility, and adhesion of the cured sealant on a test joint before applying to the entire project.
- In addition to the guidelines provided in this datasheet, Henkel Corporation recommends designers and users of Marine Silicone 1 Sealant familiarize themselves with the latest editions of the following industry guidelines and best practices:
  - ASTM C1193 Standard Guide for Use of Joint Sealants.

Clean up:

Clean uncured sealant residue immediately using mineral spirits† or paint thinner†. Cut or scrape away cured sealant using a sharp-edged tool. For removal from specific surfaces, refer to section on "Surface Preparation" for additional information.

†Mineral spirits and alcohols are flammable and should be used away from sparks, flames, and other ignition sources. Only use solvents in a well-ventilated area and follow all safety precautions and instructions listed on the product label or as otherwise provided by the manufacturer.

STORAGE & DISPOSAL

NOT DAMAGED BY FREEZING. Store unopened containers in a cool, dry, well-ventilated area away from heat, sparks, and direct sunshine under standard conditions. Standard storage conditions are defined as 22 ± 2ºC (72 ± 4ºF) and < 50% relative humidity. Elevated temperatures or extreme cold temperatures will reduce shelf life. In cool or cold weather, store container at room temperature for at least 24 hours before using. Keep container tightly closed until ready for use. Use an approved hazardous waste facility for disposal. Hardened material may be disposed of in the trash.

LABEL PRECAUTIONS

WARNING! UNCURED SEALANT MAY CAUSE SKIN, EYE, AND RESPIRATORY TRACT IRRITATION.

CAUTION! Acetic acid is released during application and cure, and has a vinegar-like odor, which may cause dizziness, headache, or nausea. Avoid breathing vapors and use in a well-ventilated area. Prolonged or repeated contact with uncured product causes eye, skin, and respiratory irritation. Do not get in eyes, on skin, or clothing. Gloves are recommended to prevent skin contact. Wash hands after use. Remove contact lenses before using. Wear safety glasses. Use with adequate ventilation. Do not swallow.

FIRST AID: For eye contact flush immediately with plenty of water. Call a physician if irritation develops and persists. For skin contact, wipe off with paper towel or cloth. Wash with water and soap immediately. If affected by inhalation, move to fresh air and get medical attention if symptoms develop or persist. If ingested, DO NOT induce vomiting; if a person feels unwell or symptoms of skin irritation appear, consult a physician. **DO NOT TAKE INTERNALLY.**
KEEP OUT OF THE REACH OF CHILDREN.

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

DISCLAIMER

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For Technical Assistance call : 1-877-607-7407 – Mon - Fri 9:00a – 4:00p ET
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