



Elektra Kem Electrical Chemicals



Flame Tech Firestopping



Seal Tite High Performance Sealants

**High Performance Sealants | Adhesives | Firestopping Products | Refractories | Electrical Chemicals | Private Label**

5180 Indiana Avenue | Winston-Salem, NC 27106

1-800-638-3600

[www.everkemproducts.com](http://www.everkemproducts.com)

## Silicone Frequently Asked Questions

### Product Questions:

#### What is an RTV Silicone?

An RTV (Room Temperature Vulcanization) silicone sealant is a sealant that begins to cure immediately upon being exposed to air (specifically the moisture present in the air), as opposed to water based sealants such as latex.

#### What is the difference between “Extended” and 100% silicone sealants?

“Extended” silicone sealants are mixed (or *cut*) with various types of oils & solvents, to varying degrees (sometimes up to 35%!). “Cutting” silicone with these materials is often done to increase the number of individual resale units a manufacturer can produce from a single raw material unit which can reduce the cost/unit, resulting in decreased performance.

100% Silicone sealants such as our TruSil100 Silicone Sealant are, as the name suggests, comprised of 100% silicone and are not “cut” with any oils or solvents. The result is increased performance over “extended” formulations in the form of greater adhesion, less shrinkage, higher temperature performance, and lower temperature application.

#### What are common silicone applications?

Silicone sealants are very versatile, and are great solutions for a wide range of applications. Various types of silicones or those with certain certifications or performance characteristics are more suited to certain applications than others.

- NSF Certified Silicone Sealants, like TruSil 100, are the ideal caulk to use in the manufacture, installation, maintenance, and repair of food service equipment, or applications where food contact may occur.
  1. Residential, Commercial, and Industrial sinks, counters, walls, and backsplashes.
  2. Foodservice appliance manufacture and repair
  3. Residential, Commercial, and Industrial refrigeration units such as meat lockers, walk-in-coolers, automatic ice machines
  4. Other applications where contact food may occur such as food display cases, transportation devices, etc
- High Temperature Silicones such as our Hi-Temp Silicone are specially formulated for high temperature performance.
  1. Sealing and encapsulating heating elements
  2. Industrial seals
  3. High temperature ductwork
- High Temperature Silicones with an NSF Certification are used in foodservice applications (or applications where contact with food may occur) and high temperature performance is required. Our Hi-Temp Silicone is formulated for performance up to 600°F and is NSF certified.



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1. Sealing stove and furnace vent pipes
  2. Oven and wood stove window seals
  3. Industrial ovens
  4. High temperature ductwork that may come into contact with food such as range, vent, and exhaust hoods.
- Mildew Resistant silicone sealants are specially formulated to inhibit the growth and spread of mildew – a type of mold characterized by a dark color & offensive musty odor. Mildew can pose a host of health concerns, and so inhibiting its growth is important.
    - Tub, tile, sinks, and counters
    - Shower stalls
    - Floor drains
    - NSF Certified sealants with Mildew Resistant properties can be used in applications where food contact may occur **and** where mildew resistance is required.
  - General silicone sealant applications:
    1. HVAC/R applications such as penetrations through the exterior of a construct
    2. Electrical applications such as service entrances
    3. Roofing applications
    4. Plumbing applications
    5. RV, trailer, and specialty vehicle manufacture and repair

#### **What are common limitations of silicone sealants?**

Although silicone sealants are very versatile in their applications, there are a number of applications they are not recommended for, including:

- Joints where physical abuse or abrasion is expected to be encountered
- Prolonged water immersion
- Building materials that might bleed oils, plasticizers, or solvents – materials such as impregnated wood, green or partially vulcanized rubber, etc
- Totally confined spaces, as silicone requires atmospheric moisture in order to fully & properly cure.
- Use in the manufacture of insulated glass units unless specified.

If you have any questions regarding your specific application, and whether or not silicone would be an effective solution – contact Everkem Diversified Products. We would be happy to assess your need and help you select the product(s) that are the best fit for your application.



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### **Is silicone paintable?**

Silicone sealants are not paintable. For a paintable solution we recommend our latex based caulks or our EvoSeal MS high performance sealant.

### **What colors do silicone sealants come in?**

TruSil 100 is available in Clear, White, Black, and Aluminum. Mildew resistant formulations are available in Clear, White, and Translucent White.

### **At what temperature can silicone caulk be applied?**

TruSil 100 can be applied in a temperature range of -25°F to 120°F. However, for best application results the caulk itself should be at room temperature. Regardless of temperature, it is important to ensure the surface be clean, dry, free of frost (for cold weather applications) for proper adherence to occur.

### **Do I need to use different caulk products for different jobs?**

Yes. Caulks differ in their formulations, and their intended use. Properties like adhesion, flexibility, elasticity, and durability vary substantially from product to product so it is important to select the right product for each job.

If you need to know the best caulk to use for your application, contact Everkem Diversified Products. We will be happy to help you select the best product(s) for your application.

## **Application Questions:**

### **Do I need to prepare the surface material before applying silicone caulk?**

It is recommended that you adequately prepare the surface(s) to be caulked so as to ensure a tight, strong seal. You should prepare the surfaces within 24 hours of application of product.

- For metals, glass, plastics, and other similar materials prepare the surface by applying a solvent such as mineral spirits. Make sure to wipe the surface dry with a clean cloth. When using solvents, make sure the area is well-ventilated. Make sure to follow any and all safety precautions.
- For porous surfaces, use a sandpaper or wire brush where needed in order to ensure a clean surface.

Do not use silicone on galvanized surfaces. Do not use in areas that will be continually submerged in water. Do not clean with a detergent or soap & water as silicone will not adhere well to surfaces where soap residue and/or soap scum is present.



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### **Can I apply new silicone atop, or alongside old silicone caulk?**

It is recommended that any old silicone is removed. While new, freshly applied silicone can be applied & will bond to old silicone – the bond isn't as strong as if it were applied to a clean surface.

### **How do I apply silicone caulk?**

1. First and foremost, clean and prepare the surface by removing old caulk, dirt, and other debris to ensure a clean, strong adherence between the sealant and the surface being caulked.
2. Cut the tip off the cartridge and screw on the removable nozzle and cut tip to your desired bead size. Insert cartridge into standard caulking gun.
3. Hold at a 45° angle and apply silicone sealant ahead of nozzle to achieve a smooth seal
4. Complete tooling within 5 minutes using your finger or a damp paper towel. Use a dry paper towel to remove excess material.
5. Sealant normally “skins over” in 5 minutes, dries to touch in 1 hour, and cures & bonds in 24 hours. Allow 7 day cure time to reach maximum strength.
  - a. If you are using a caulk tube with a removable nozzle, like TruSil 100 and require more than one tube for your project – you can screw the nozzle from the previous tube onto the new cartridge in order to keep your bead size consistent.
  - b. If you have caulk remaining in the tube, make sure to store it properly. Wipe hands with a dry cloth, and then wash with soap and water.

### **What do the terms “Tooling” and “Tooling Time” mean?**

- Tooling refers to ‘working’ the caulk, often times to smooth or otherwise manipulate the caulk.
- Tooling Time refers to the amount of time you have to “Tool” (or work) the silicone before it begins to skin over

### **What is the tooling time for silicone caulk?**

Our TruSil 100 begins to skin over in 5 minutes, so all tooling should be completed within that time frame.

### **What does the term “Skinning Over” mean?**

Skinning over means that the product has begun to cure and has developed a firm skin formation on the surface.

### **How do I store silicone caulk?**

1. Remove the screw on nozzle, and make sure any air is removed by pushing the caulk to the tip of the cartridge before replacing the screw on nozzle.
2. Replace the removable tip.
3. Store in a cool, dry environment.



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### **Does silicone caulk go bad?**

Everkem Diversified Products stands behind a one year shelf life guarantee of our silicone products. This is tracked by batch numbers, which indicate the date of production.

You can always test the caulk before starting a project by running a small bead of caulk on a scrap piece of wood, cardboard, etc. If after approximately 15-20 minutes the product has not formed a “skin”, the product is most likely expired and will not fully cure.

If the silicone has hardened (cured) in the tube, it can not be used and has most likely passed its shelf-life. If you have reason to believe the product has not passed its shelf life, return it to the place of purchase or contact Everkem Diversified Products directly.

### **Once I have applied the caulk, how long do I need to wait for it to cure?**

Typically, our TruSil 100 & Hi-Temp silicone (and other silicone sealants) will cure in 24 hours. Of course, this cure time could vary depending on environmental factors – primarily the moisture in the air. Since TruSil 100 is a moisture curing silicone sealant, it relies on the moisture in the air to cure. Lack of humidity will extend the curing process, and could take up to 48 hours.

### **How long will silicone sealants release an odor?**

Silicone will smell strongly of vinegar as it cures due to the acetic acid it contains. This smell will persist through the first 24 hours after application until it has had sufficient time to cure.

### **How much will a single tube of caulk cover?**

TruSil 100 is available in 10.1 oz cartridges. The yield from these cartridges varies from application to application, based on the joint depth & width and bead size. You can utilize our caulk yield estimator to determine the approximate number of linear feet you can caulk based on the amount you have on hand **or** use it to estimate the number of tubes you will need to complete your project. Also, should you desire TruSil 100 in other packaging options, you can estimate the yield from those as well.