

Application and Storage Recommendations for NuSil's Primers

Adhesion is a critical property for numerous applications involving silicone materials. Silicone primers are often used to improve adhesion between silicones and various substrates. The proper handling and application of silicone primers can enhance the overall strength and consistency of bonds. The following procedures are recommended for best bonding results:

Storage and Handling

1. Pour out amount needed for use.
2. Discard unused primer. Do not place back in original container.
3. Containers should remain sealed when not in use. The primer will hydrolyze in the presence of atmospheric moisture.
4. It is recommended to fill empty space in the container with a dry gas, such as argon or nitrogen, before sealing container (original or secondary container). The appearance of white solids indicates that the primer is hydrolyzed and will no longer aid in adhesion.



Store covered when not in use



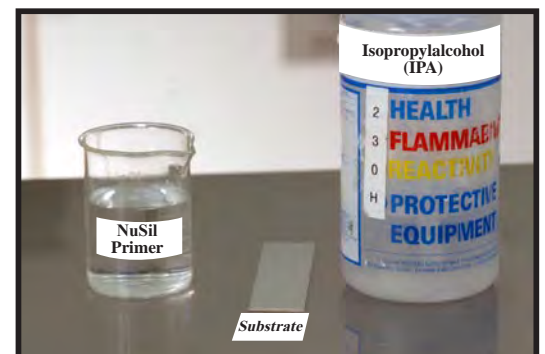
Do not leave uncovered for long periods of time



For long term storage, keep in original container

Recommended Materials / Conditions

- **Gloves** - Use vinyl or nitrile gloves when handling parts. Latex gloves are known to cause cure inhibition of silicone where the gloves come into contact with the surface to be primed. This applies to platinum cure (also known as Addition Cure) silicones.
- **Cleaning Agent** - Electronic grade Isopropylalcohol (IPA) is recommended as it does not leave residues and evaporates rapidly.
- **Foam Wipes** - Use clean-room grade wipes. Avoid using wipes that may contain dust, oil, and fibers. These items can cause interference with the primer reaction.
- **Solvents** - Typically VM&P naphtha or xylene (NuSil's R-1001).
- **Ventilation** - Apply standard safety procedures when working with flammable materials.

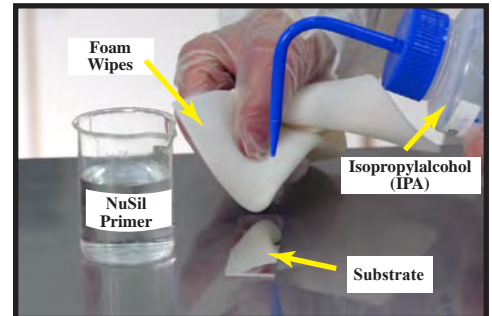


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Instructions for Application

1) Clean Surface

- Using gloves, clean and degrease the surface being primed with cleaning agent and foam wipe.



2) Application Methods

Shake primer bottle well prior to use.

- Wiping**
 - Step 1.** Saturate a clean foam wipe with the primer and apply in a thin uniform coat.
 - Step 2.** Remove excess primer by gently wiping the other direction.
- Diluting (if required)**
 - Start with a one to one dilution of primer to solvent (See NuSil's MSDS for recommended solvent).
 - Mix together by shaking.



3) Primer Reaction

- Conditions should be room temperature (approximately 15°C to 30°C) and 30 - 80% relative humidity. Typical drying time is 1 hour minimum.
- Correctly applied primers are difficult to see on the substrate since it should be applied in a thin layer. If the primer is too thick it will form a powder like substance and decrease adhesion of silicone.



For additional information on adhesion and NuSil's primers please visit www.nusil.com/whitepapers/resources/index.aspx and be sure to reference:

- Choosing a Silicone Primer/Adhesive System
- Case Study: Affects of Primer on Adhesion to Silver and Gold

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