

GEL-8136

Tacky silicone gel

DESCRIPTION

- Clear, tacky, firm silicone gel
- Easy mixing two-component, low viscosity system
- 1:1 Mix Ratio (Part A:B)
- Platinum Cure

APPLICATION

- Ideal for casting, calendaring, and backfilling.
- Suitable for applications requiring a clear, tacky, firm silicone gel
- For use as an embedding or potting compound for protection of electronic assemblies and components from environmental contamination
- Provide excellent stress relief for thermal cycling of sensitive components such as wire bonds and thin wafers
- Electrically insulating and non-conductive
- Ideal for potting and filling intricate assemblies, LCD bonding, and has excellent adhesion at various thickness for tapes.
- Ideal for use in automated dispensing equipment

PROPERTIES

Typical Properties	Average Result	Standard	NT-TM
Uncured:			
Appearance	Colorless	ASTM D2090	002
Viscosity	450 cP (450 mPas)	ASTM D1084, D2196	001
Viscosity after 1 hr	1,500 cPs maximum	ASTM D1084, D2196	001
Cured: 60 minutes at 140°C (280°F)			
Penetration (51g shaft, 1/8 inch foot, 5 seconds)	14 mm	-	011
Surface-Tack Test	12.0 psi (82 kPa)	ASTM D429	103

The above properties are tested on a lot-to-lot basis. Do not use as a basis for preparing specifications. Please [contact](#) NuSil Technology for assistance and recommendations in establishing particular specifications.

** Above are average results of properties tested on pilot batches of GEL-8136. The batches tested and the results provided above are believed to be representative of the formulation and processing in the future. However these values may shift slightly as the material is commercialized.

INSTRUCTIONS FOR USE

Processing

Thoroughly mix Part A with Part B in a 1:1 mix ratio by weight or volume. Airless mixing, metering and dispensing equipment is recommended for production processing.

Mixing & Vacuum Deaeration

Thoroughly mix Part A with Part B in a 1:1 mix ratio by weight. Remove air entrapped during mixing by common vacuum deaeration procedure. Prior to deaeration, NuSil recommends verification of the work time of the material, and observation of all applicable safety precautions. Slowly apply vacuum, up to 28 inches Hg, to a container rated for use and of volume at least four times that of material being deaerated. Apply the vacuum while observing the uncured fluid for presence of bubble formation and increase vacuum slowly enough to avoid rapid foaming. Hold vacuum until presence of air is no longer evident. For more information visit www.nusil.com and review [Mixing and De-airing Addition Cure Silicones](#) in our technical resources.

NuSil recommends selecting side by side kit packaging (50 ml cartridge) if unable to perform the de-airing procedure above due to the pot life of the material.

Substrate Considerations

Cures in contact with most materials, exceptions include: sulfur-cured organic rubbers, latex, chlorinated rubbers, some RTV silicones and unreacted residues of some curing agents. Epoxies with amine catalysts and solder flux are known to inhibit cures of platinum catalyzed silicones, NuSil Technology recommends taking precaution to minimize contact with said substrates. For more information visit www.nusil.com and review [Avoiding Cure Inhibition](#) in our technical resources.

Note: Some bonding applications may require the use of a primer. NuSil Technology's CF1-135 is recommended. For more information on primer selection, visit www.nusil.com and review [Choosing a Silicone Primer/Adhesive System](#).

Substrate Preparation

Substrates should be free of dust, oil, and fingerprint soils. Clean substrates using suitable industrial techniques for cleaning electro-optics. If using hydrocarbon solvent cleaning (e.g. acetone, toluene), a final rinse with reagent grade isopropanol is recommended. If using aqueous detergent cleaning, multiple final rinses with de-ionized water or a single rinse with reagent grade isopropanol is recommended. Obtain improved adhesion to some substrates using suitable primers such as NuSil Technology's CF1-135 primer. Adhesion to

Packaging

50 ml SxS Kit
2 Pint Kit (910 g)
2 Gallon Kit (7.28 kg)
10 Gallon Kit (36.4 kg)
2 Drum Kit (340 kg)
2 Tote Kit (2,000 kg)

Warranty

12 Months

fluoroplastic substrates is generally poor but may be improved with chemical etching or plasma etching of the substrate.

Clean-Up

Remove from surfaces by first wiping off excess uncured material with a suitable, dry, lint-free wipe and then by wiping down the surface with a lint-free wipe soaked with xylene of reagent grade isopropanol. Complete the clean-up process with a final rinse with reagent grade isopropanol. The user is responsible for compliance with all applicable regulations governing disposal of waste materials as indicated in the MSDS. For information on removing cured material please visit www.nusil.com and review [Silicone Removal for Electronic Rework Applications](#) in our technical resources.

SPECIFICATIONS

Do not use the properties shown in this technical profile as a basis for preparing specifications. Please [contact](#) NuSil Technology for assistance and recommendations in establishing particular specifications.

WARRANTY INFORMATION

The warranty period provided by NuSil Technology LLC (hereinafter "NuSil Technology") is 12 months from the date of shipment when stored below 40°C in original unopened containers. Unless NuSil Technology provides a specific written warranty of fitness for a particular use, NuSil Technology's sole warranty is that the product will meet NuSil Technology's then current specification. NuSil Technology specifically disclaims all other expressed or implied warranties, including, but not limited to, warranties of merchantability and fitness for use. The exclusive remedy and NuSil Technology's sole liability for breach of warranty is limited to refund of purchase price or replacement of any product shown to be other than as

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NuSil Technology has tested this material only to determine if the product meets the applicable specifications. (Please [contact](#) NuSil Technology for assistance and recommendations when establishing specifications.) When considering the use of NuSil Technology products in a particular application, review the

latest Material Safety Data Sheet and [contact](#) NuSil Technology with any questions about product safety information.

Do not use any chemical in a food, drug, cosmetic, or medical application or process until having determined the safety and legality of the use. The user is responsible to meet the requirements of the U.S. Food and Drug Administration (FDA) and any other regulatory agencies. Before handling any other materials mentioned in the text, the user is advised to obtain available product safety information and take the necessary steps to ensure safety of use.

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Polymer Systems Technology Limited

Silicone Sales & Services UK - Ireland - Benelux

© 2019 - Polymer Systems Technology Limited™
Unit 2. Network 4. Cressex Business Park,
Lincoln Road, High Wycombe, Bucks. HP12 3RF

tel: +44 (0) 1494 446610

web: <https://www.silicone-polymers.com>

email: sales@silicone-polymers.co.uk

