



FISil SI105 Re-Enterable Gel

FEATURES & BENEFITS

- 100% Solids / Solvent free
- Exceptionally fast cure
- Convenient 1:1 mix ratio
- No corrosive by-products
- Environmentally friendly
- Low shrinkage
- Virtually no exotherm
- No post-cure required

APPLICATIONS

- Gel filled splicing kits
- Outdoor junction boxes
- Buried or exposed electrical connections
- Clam-shell enclosures
- Cable splicing units

AVAILABILITY

- 55-Gallon Drums
- 5-Gallon Pails
- 600 ml Side-by-side cartridges

STORAGE / SHELF LIFE

SI105 may be stored in original, unopened containers at, or below, 75F for up to one (1) year.

DESCRIPTION

Star Technology FISil SI105 is a clear, re-enterable, silicone based protective gel for electrical / electronic enclosures, junction boxes and terminal blocks. Extremely hydrophobic, FISil SI105 provides an excellent water-tight seal in buried or outdoor applications.

TYPICAL PROPERTIES

Product Characteristic	Test Method	Performance Range
Appearance (mixed)	Visual	Clear liquid
Mix Ratio		1:1 By Volume (1:1 By Weight)
Viscosity Part A Part B	Brookfield	2000—2500 cps 1000—1500 cps
Specific Gravity		0.96—1.06
Work-life @ 25C		<15 minutes
Cure Time @ 25C		3-4 hours
Service Temperature		-40C to 205C (-40F to 400F)
Stretch (Pull)	Internal Test	3.5—4.75 inches

ADDITIONAL INFORMATION

- Refer to Technical Bulletins for additional mixing, curing and handling procedures.
- As with any platinum-catalyzed silicone gel, the cure may be inhibited. Always check compatibility. Refer to Technical Bulletin for information.
- Even when fully cured, re-enterable gels are extremely soft and tacky; however, uncured liquid may indicate cure inhibition or improper mixing.
- Not recommended for surfaces that are to be painted.

To the best of our knowledge, the information provide herein is accurate. However, Star Technology, Inc. does not assume any liability for the accuracy or completeness of the information contained herein. Final determination of the suitability of any material is the sole responsibility of the user. The information contained herein is considered typical properties and is not intended to be used as specifications for our products. This information is offered solely to assist purchaser in selecting the appropriate products for purchaser's own testing. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein and in the Safety Data Sheet, we cannot guarantee that these are the only hazards that exist.



Silicones Mixing & Curing

INTRODUCTION

Star Technology silicones are often two-component materials that require mixing prior to application. The information provided in this bulletin describes the proper techniques for handling, mixing and curing these products.

MIXING

These materials are shipped in separate containers that are labeled Part A and Part B. While the material may be mixed by hand, it is often more appropriate to use automated, meter-mixing equipment. The specific product *Technical Data Sheet* provides the mix ratio and should be strictly obeyed. Typically, the compounds are designed with a convenient 1:1 (Vol:Vol) mix ratio; however, there are certain products that do not follow this generalization. Always refer to the *Technical Data Sheet* before proceeding with any mixing operations. Automated mixing eliminates the need for a deairation cycle. If mixing by hand, weigh the required amount of Part A into an appropriately sized mixing vessel; add the prescribed amount of Part B and mix thoroughly. Vacuum degas. Do not estimate weights and measures. These products are mix ratio sensitive and require accurate metering.

SUBSTRATE PREPARATION

Substrates must be clean, dry and free from any potential contaminations. Applications that require exceptional adhesion may necessitate the use of a primer. Additional information for primer usage may be found in the technical bulletin entitled "Primers for Silicone Application." Self-priming silicone potting and encapsulating compounds are available; consult your local Star Technology Sales Representative for information.

PROCESSING AND CURING

Thoroughly mixed silicones may be directly applied to the intended application. Care must be observed to avoid, or minimize, any air entrapment. Where possible, dispensing should be performed under vacuum, particularly if the component contains small voids. Most two-component StarSyl silicones will cure at room temperature; however, the cure may be accelerated with heat for faster production cycles. Work-life and cure times for each product are detailed in the product specific *Technical Data Sheet*. The cure reaction begins immediately after mixing the two components.

CURE INHIBITION AND OTHER PRECAUTIONS

As with all addition-cure silicone products, certain materials, chemicals, curing agents and plasticizers may inhibit the cure. Most notable are organo-tin catalysts, amino compounds, polysulfides and other sulfur-containing materials, certain hydrocarbon plasticizers and some solder flux residues. If there is any question regarding substrate compatibility it is recommended that small-scale testing be performed prior to full-scale application. The presence of a liquid, or uncured material at the interface between the substrate and the cured product indicates possible cure inhibition and incompatibility.

Do not use in or around highly oxidative chemicals such as liquid oxygen, chlorine or peroxides. Not recommended for surfaces that are to be painted.

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