

## Technical Data Sheet

### GENERAL DESCRIPTION

High Temperature, Soft Polyurethane/Epoxy Hybrid Sealant

**GSP 1414** is specially formulated to withstand temperatures higher than the typical range of a polyurethane. While general polyurethanes can only withstand temperatures up to 150°-200°F, **GSP 1414** can withstand temperatures up to 230°F. When applied, the material forms a white thixotropic bead. **GSP 1414** also provides good hydrolytic stability.

Features are:

- Resists higher temperatures than conventional polyurethanes (up to 230°F)
- Convenient mix ratio (4:1 parts by volume)
- No solvents. 100% reactive
- Will bond to a variety of substrates

### COMPONENT PROPERTIES

Property	GSP 1414 Part A	GSP 1414 Part B
Shelf Life	3 months	3 months
Density (lb/gal)	9.45	8.85
Viscosity	5,500	145,000
Color	Lt Yellow	White

### HANDLING PROPERTIES

Property	GSP 1414
Mix Ratio by Weight	23A:100B
Mix Ratio by Volume	1A:4B
Pot Life	20-30 min
Gel Time	2 hours
Cure Time	6-24 hours at room temp.

### PHYSICAL PROPERTIES

Property	GSP 1414
Hardness	50-55 Shore A
Color	Off-White
Temperature, Upper Limit	Up to 230°F (110°C)
Dielectric Strength (V/mil)	262 (ASTM D149-97a Method A)
Dielectric Constant (k)	4.11 (ASTM D150-98)
Volume Resistivity ( $\Omega \cdot \text{cm}$ )	5.590E+12 (ASTM D257-99)

## INSTRUCTIONS FOR USE

The recommended method of application for this product is with prepackaged, side-by-side ratio tubes using a dispenser and a static mix nozzle. To ensure an accurate mix ratio when dispensing material through a static mixer, discard the first material extruded from the mixer. Product can now be applied directly to the bonding surface. Static mixers and dispensers are available from GS Polymers. Contact the sales department for further information.

**TO MIX BY HAND:** Proportion out components according to parts by weight or volume ratio into a non-reactive container (polyethylene, polypropylene, or metal de-rimmed can). Container should be about five times larger than the volume of the mixed material. Mix components very thoroughly, preferably with a metal spatula, scraping the sides and bottom of container to incorporate all material.

Remove the air entrapped during mixing by placing the container of mixed material into a vacuum chamber. Under vacuum, the level of mixed material will rise and then drop with strong bubble breaking action. Do not allow the contents to rise over the top of the container. Allow the material to de-gas (de-air) until the liquid level drops and bubbling is minimal. Release vacuum. If working time allows, transfer material to a clean container without scraping sides or bottom before applying. If working time does not allow transfer, material should be used immediately.

**Note:** During application, do not scrape sides or bottom of the container used for mixing. Residual amounts of poorly mixed material may be incorporated. Such material may fail to cure completely, and may not achieve full physical properties.

## CURING INSTRUCTIONS

**Mix Ratio by Volume:** 1 part by volume **GSP 1414 Part A** to 4 parts by volume **GSP 1414 Part B**.

**READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET (MSDS) PRIOR TO USING THIS PRODUCT.**

### Notice to User:

The following is made in lieu of all warranties, expressed or implied. Seller's and manufacturer's only obligation shall be to replace such quantity of product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, user shall determine the suitability of the product for his intended use, and user assumes all risks and liability whatsoever in connection therewith. The foregoing may not be altered except by an agreement signed by officers/owners of G.S. Polymers, Inc.

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