

## Technical Data Sheet (TDS)

### GENERAL DESCRIPTION

#### Optically-Clear Urethane System

GSP 1552-2 is an optically-clear, two-part, polyurethane system that cures at room temperature. It is easily mixed into a pourable material. When cured, it produces a tough, flexible elastomer which resists water and ultraviolet light. This system is ideal for many potting and encapsulating applications where optical clarity is desired or where UV and weather resistance are needed.

Key features are:

- Contains no solvents. 100% reactive
- Optically-clear
- Pourable
- Hydrophobic
- Resistant to foaming

### COMPONENT PROPERTIES

Property	GSP 1552-2 Part A	GSP 1552-2 Part B
Shelf Life	6 months	6 months
Density (lb/gal)	9.03	9.16
Viscosity	~6500 LV-4 @ 20 rpm	~350 LV-2 @ 20 rpm
Color	Water clear	Water Clear

### HANDLING PROPERTIES

Property	GSP 1552-2
Mix Ratio by Weight	100 A : 100 B
Mix Ratio by Volume	1:1
Pot Life	10 min
Gel Time	15 min
Cure Time	24 - 48 hours @ room temperature 2 hours @ 180°F

### CURED PROPERTIES

Property	GSP 1552-2
Hardness	60 - 65 Shore A
Color	Water Clear
Dielectric Strength (V/mil)	322 (ASTM D149-97a Method A)
Dielectric Constant (k)	3.79 (ASTM D150-98)
Volume Resistivity ( $\Omega \cdot \text{cm}$ )	2.783E+13 (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. 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 weight:** 100 parts by weight **GSP 1552-2 Part A** to 100 parts by weight **GSP 1552-2 Part B**.

**Pot Life:** Do not mix more than can be applied in 10 minutes. Gel time is about 15 minutes but will vary depending on the mass mixed and the ambient temperature.

**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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