

## GSP 1552-2

### POLYURETHANE CASTING AND POTTING SYSTEM

Optically-Clear, 60 Shore A

#### GENERAL DESCRIPTION

GSP 1552-2 is an optically-clear, two-part polyurethane system that cures at room temperature. With a convenient mix ratio (1 to 1 by both weight and volume), its low-viscosity A and B components are easily mixed into a readily pourable material. Once cured, it forms a tough, flexible elastomer, which resists degradation from water and ultra-violet light. This system is ideal for many potting and encapsulating applications where optical clarity is desired, or where UV and weather resistance are needed.

#### FEATURES

- 100% reactive (Contains no solvents)
- 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 (cps)	~6500 (LV-4 @ 20rpm)	~350 (LV-2 @ 20rpm)
Color	Water Clear	Water Clear

#### HANDLING PROPERTIES

PROPERTY	GSP 1552-2
Mix Ratio by Weight	100 A : 100 B
Mix Ratio by Volume	1 A : 1 B
Pot Life	10 minutes
Gel Time	30 – 60 minutes
Cure Time	24 – 48 hours @ room temperature 2 hours @ 180°F

## PHYSICAL PROPERTIES

PROPERTY	GSP 1552-2
Hardness	55 – 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 ( $\Omega \cdot \text{cm}$ )	$2.783 \times 10^{13}$ (ASTM D257-99)

## INSTRUCTIONS FOR USE

### SIDE-BY-SIDE (SBS) CARTRIDGE:

The recommended method to ensure an accurate mix ratio when dispensing material from a SBS tube through a static mixer nozzle is as follows:

1. Remove the nozzle tip-cap by twisting and pulling it off. Do not discard tip cap unless all the material in SBS tube is used. Save for reattachment to seal remaining material in the SBS tube.
2. Extrude enough material until there is an even flow of material from both openings. Discard this material extruded from the SBS tube.
3. Attach the mix static nozzle by twisting it on the nozzle tip. Extrude material until ~2-3 cm (~1 inch) of material has extruded. Discard this material extruded from the mixer.
4. Material can now be applied directly to the bonding surface.
5. When application is complete and there is still material remaining in the SBS tube, remove and discard the static mix nozzle.
6. Clean the tip-cap thoroughly to prevent cross contamination of the tip openings.
7. Attach tip-cap back onto the SBS tube.

### TO MIX BY HAND:

**Mix Ratio by Volume:** 1 parts by volume GSP 1552-2 Part A to 1 part by volume GSP 1552-2 Part B.

**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 30 - 60 minutes but will vary depending on the mass mixed and the ambient temperature.

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.

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.

**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. It is the customer's responsibility to determine fitness of use for all GSP products by directly testing the materials first-hand for each application. Please fully evaluate the materials so as to convince yourself of appropriate and adequate performance. Before using, customer shall determine the suitability of the product for the intended use, and customer assumes all risks and liability whatsoever in connection therewith.

The only obligation of the seller or manufacturer 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. The foregoing may not be altered except by an agreement signed by officers/owners of G.S. Polymers, Inc.

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