

## GSP 1353-4

### EPOXY ADHESIVE

General Purpose, Fast Cure, Clear

#### GENERAL DESCRIPTION

**GSP 1353-4** is a rapid-cure, clear, two-component, general purpose adhesive. **GSP 1353-4** can be used to encapsulate small electrical components. While curing, **GSP 1353-4** will resist yellowing, whereas many epoxies will yellow or turn amber. Packaging options vary, including convenient 1:1 dual ratio tubes. A modified version, GSP 1353-5 offers a slightly higher temperature and chemical resistance, if desired.

#### FEATURES

- 100% reactive (contains no solvents)
- Convenient 1:1 mix ratio by weight and by volume
- Fast curing (5 min Gel)
- Resistant to yellowing
- Good adhesion to a variety of substrates (metals, fabrics, glass, wood and concrete)

#### APPLICATIONS

Panel & Sub-Assembly bonding	Metal bonding (exceptional with copper)
Electrical encapsulating/potting	Plastic Bonding
FRP bonding	Concrete Bonding

#### COMPONENT PROPERTIES

PROPERTY	GSP 1353-4 PART A	GSP 1353-4 PART B
Shelf Life	3 years	3 years
Density (lb/gal)	9.7	9.6
Color	Clear	Clear to Light Yellow

#### HANDLING PROPERTIES

PROPERTY	GSP 1353-4
Mix Ratio by Weight	100 A : 100 B
Mix Ratio by Volume	1 A : 1 B
Viscosity, mixed (cps)	<10000
Gel Time*	2 – 5 minutes
Fixture Cure Time*	10 – 15 minutes
Operating temperatures	-40°F to 200°F

\* Gel and Fixture Cure time are subject to the mass of the cast, the temperatures of the material, the environment and the mold.

## PHYSICAL PROPERTIES

PROPERTY	GSP 1353-4
Color	Transparent Light Yellow
Shore D Hardness	10 minutes 20 minutes 30 minutes 90 minutes
	20 50 65 85
Water Absorption, % weight	0.4
Tensile Lap Shear, 25°C, Al to Al, psi	
	Cured, 30 minutes Cured, 1 hour Cured, 2 hours Cured, 4 hours
	1140 2100 2840 2845
T-Peel, Al to Al, pli	3
Elongation, %	2
Impact (ft lb/sq in)	~6.0

## 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 part by volume GSP 1353-4 Part A to 1 part by volume GSP 1353-4 Part B.

**Mix Ratio by Weight:** 100 parts by weight GSP 1353-4 Part A to 100 parts by weight GSP 1353-4 Part B.

**Pot-Life:** Do not mix more than can be applied in 2-5 minutes. Gel time is about 5 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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