

GSP 1345

EPOXY ADHESIVE AND POTTING SYSTEM

Thermally Conductive, Side by Side Cartridge, 85 Shore D

GENERAL DESCRIPTION

GSP 1345 is a two-part, thermally conductive epoxy system. It features an easy to use 1:1 mix ratio. With virtually no settling of fillers, it can be packaged and stored in cartridges. The system is a good candidate in potting applications where heat transfer is required. This system exhibits robust cured properties with excellent adhesion and impact resistance.

FEATURES

Thermally Conductive
100% reactive (Contains no solvents)
Convenient mix ratio – one to one by weight and by volume

COMPONENT PROPERTIES

PROPERTY	GSP 1345 PART A	GSP 1345 PART B
Shelf Life	6 months	6 months
Density (lb/gal)	14.3	12.5
Viscosity (cps)	72000 (RV-7 @ 5rpm)	108000 (RV-7 @ 5rpm)
Color	Black	White

HANDLING PROPERTIES

PROPERTY	GSP 1345
Mix Ratio by Volume	1 A : 1 B
Mix Ratio by Weight	100A:100B
Pot Life	1 hour
Gel Time	1 hour
Cure Time	24 hours @ room temperature 2 hours @ 120°F

PHYSICAL PROPERTIES

PROPERTY	GSP 1345
Hardness	82-88 Shore D
Color	Black
Temperature Range	Remains hard up to 200°F
Dielectric Strength (V/mil)	414 (ASTM D149-97a Method A)
Dielectric Constant (k)	3.23 (ASTM D150-98)
Volume Resistivity ($\Omega \cdot \text{cm}$)	5.327×10^{15} (ASTM D257-99)
Thermal Conductivity (BTU/(hr)(sq ft)(ft)(°F))	.82

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 1345 Part A to 1 part by volume GSP 1345 Part B.

Mix Ratio by Weight: 100 parts by weight GSP 1345 Part A to 100 parts by weight GSP 1345 Part B.

Pot-Life: Do not mix more than can be applied in 1 hour. Gel time is about 1 hour 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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