Hybrid Plastics®

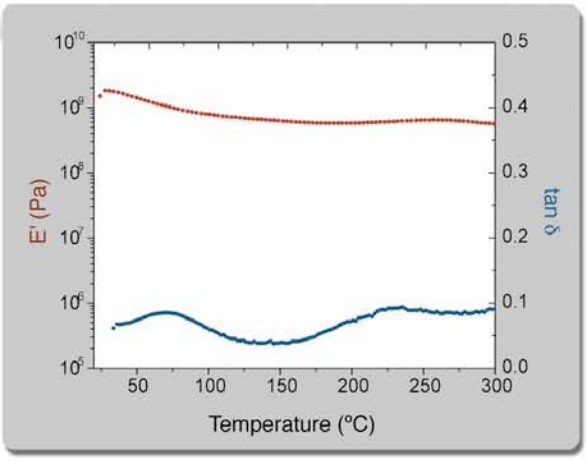
Superior Technology for Superior Products

POSS® Resin EP3510

EP3510 is a POSS® based, ultra high-temperature epoxy resin. The POSS® content in EP3510 offers unique properties such as high thermal stability, outstanding oxygen and chemical resistance. Major applications include composites, medical devices, and electronics.

KEY PERFORMANCE

- High use temperature (> 250ºC)
- High degradation temperature (> 325ºC)
- Low viscosity, easy handling
- Transparent
- Very low outgassing and VOC
- Excellent adhesion to glass fiber and carbon fiber



Dynamic Mechanical Analysis

PHYSICAL PROPERTIES

Composition:	POSS® epoxide Imidazole
Density (after cure):	~1.2 g/mL
Pot life:	3 hours
Glass Transition:	> 300°C
Viscosity (after mixing):	< 50 Poise
Young's Modulus:	1-1.5 GPa
CTE:	120 ppm/°C
Hardness (shore D):	85
Appearance after hardening:	Dark amber solid
Shelf Life:	6 months at room temperature; 1 year if refrigerated.

RECOMMENDED CURE PROCEDURE

(1) Store resin/hardener at room temperature
(2) Thoroughly mix Part A with Part B (50:1, ratio in weight percentage)
(3) Begin molding or infusion
(4) Cure at 80°C for 60 minutes
(5) Post-cure at 150ºC for 4 hours.
(6) Slowly cool the part down to room temperature

WARRANTY

The information contained herein is believed to be accurate and reliable. However, the user is responsible for determining the suitability and use of the final formulations/products. Hybrid Plastics® warrants that its products will meet specifications, but not merchantability or fitness for use.

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