

ERISYS™ GE-13
Phenyl Glycidyl Ether
Aromatic Monofunctional Reactive Diluent
CAS NO. 122-60-1
EINECS 204-557-2

DESCRIPTION

ERISYS GE-13, epoxidized phenol, is an aromatic monofunctional diluent. GE-13 is intended for use as a reactive diluent for high viscosity epoxy resins, and it is compatible at all concentrations with those resins.

GE-13 is one of the most efficient viscosity reducing aromatic epoxides. It allows higher filler loading and improves substrate wetting. Resin/diluent blends can be cured using any curing agent suitable for epoxy crosslinking. Due to its aromatic structure, GE-13, when compared to aliphatic monofunctional epoxy diluents, has less of an effect on the cured properties of epoxy formulations.

TYPICAL PROPERTIES

Appearance	Clear, Clean
Viscosity at 25°C, cps	4 - 7
Epoxide Equivalent Weight, g/eq	150 - 165
Gardner Color, max	2
Residual Epichlorohydrin, max ppm	10
Hydrolyzable Chloride, max %	0.10
Weight per Gallon, @ 25°C lbs.	9.2 ± 0.1
Flash Point, °C (°F)	114 (237)

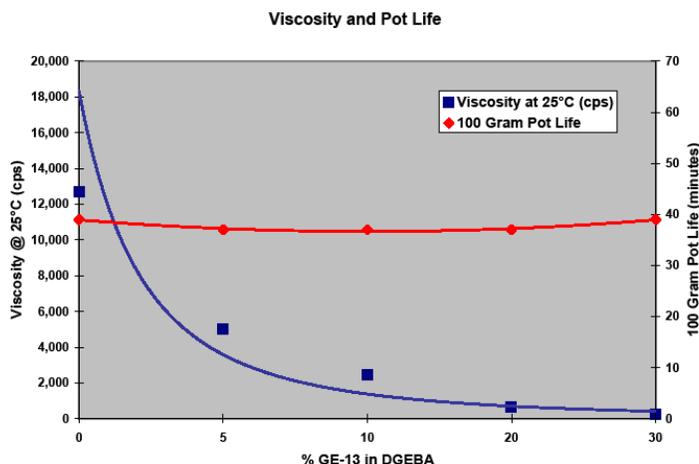
HANDLING PROPERTIES

The use of ERISYS GE-13 will effect the handling and cured properties of resin formulations. The effects of these changes are shown below.

APPLICATIONS

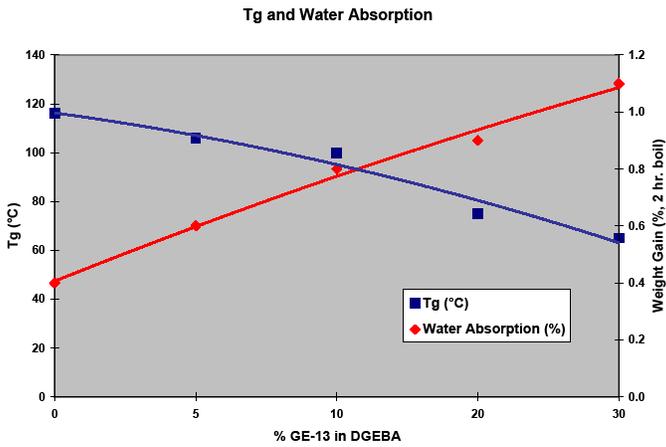
- Potting and Encapsulating
- Electrical Impregnation
- Curing Agent Adducts
- Tooling

VISCOSITY AND POT LIFE

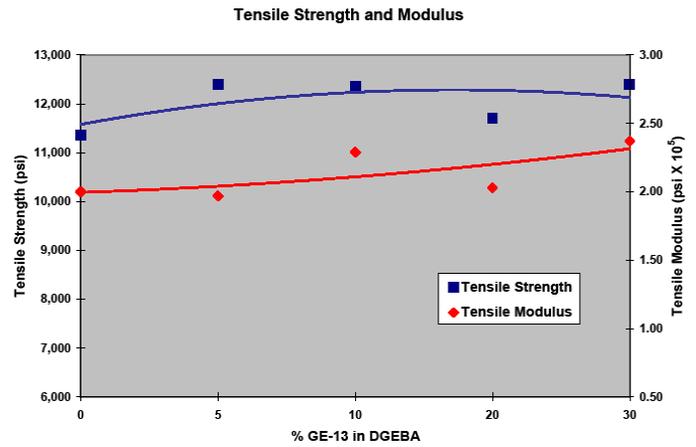


THE EFFECT OF ERISYS GE-13 ON THE CURED PROPERTIES OF LIQUID EPOXY RESIN (EEW 188) CURED WITH TETA

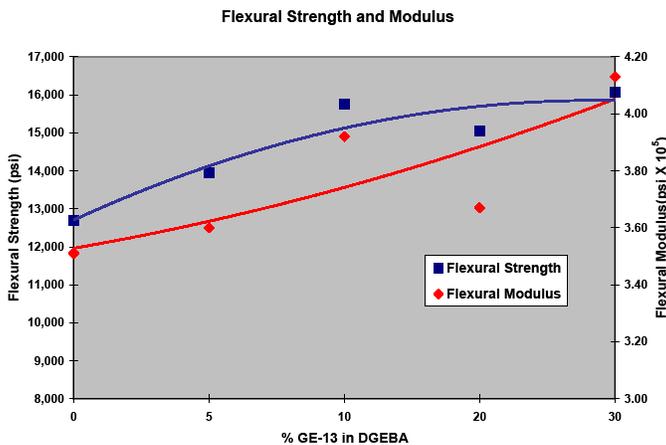
Tg and WATER ABSORPTION



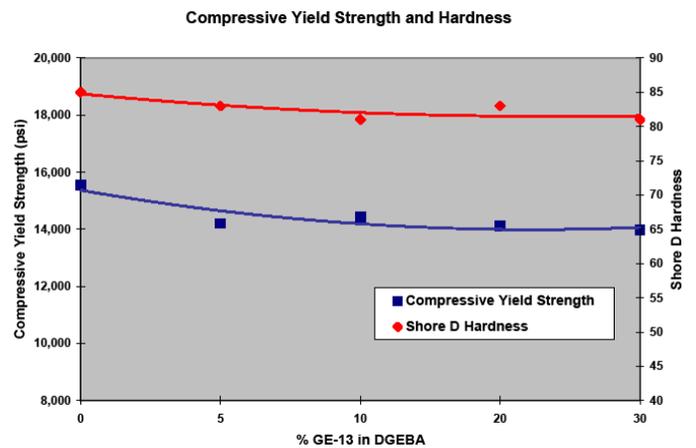
TENSILE PROPERTIES



FLEXURAL PROPERTIES



COMPRESSIVE STRENGTH and HARDNESS



Physical Properties Report	ERISYS GE-13 in EPALLOY 7190				
Epalloy 7190	100	95	90	80	70
Erisys GE-13	0	5	10	20	30
TETA	13.0	13.0	13.2	13.4	13.8
Resin Viscosity @ 25°C (cps)	12,700	5,000	2,450	675	250
100 gram gel time (mins)	39	37	37	37	39
Tensile Strength (psi)	11,357	12,405	12,362	11,711	12,393
Tensile Elongation (%)	8.1	11.6	9.2	9.5	8.3
Tensile Modulus (psi x 10 ⁵)	2.00	1.97	2.29	2.03	2.37
Flexural Strength (psi)	12,687	13,952	15,749	15,041	16,074
Flexural Modulus (psi x 10 ⁵)	3.51	3.60	3.92	3.67	4.13
Compressive Yield Strength	15,552	14,202	14,426	14,129	13,960
Compressive Modulus (psi x 10 ⁵)	2.29	2.59	2.89	2.93	2.91
Shore D Hardness	85	83	81	83	81
Tg (°C)	116	106	100	75	65
Water Absorption (28 days @ RT)	0.4	0.5	0.8	1.0	1.0
Water Absorption (2 hour boil)	0.4	0.6	0.8	0.9	1.1

HEALTH & SAFETY PRECAUTIONS

ERISYS GE-13 is corrosive to the skin. Prolonged or repeated contact may cause drying, irritation and skin sensitization. The vapor pressure of PGE is less than .01 mmHg at room temperature and its density is significantly heavier than air.

Contact with skin should be completely avoided. For other than incidental contact, chemical resistant gloves and appropriate protective clothing are the best protection.

Refer to **CVC Thermoset Specialties** Material Safety Data Sheet on ERISYS GE-13 for additional safety and health information. The MSDS is revised as new data becomes available.

PACKAGING & AVAILABILITY

ERISYS GE-13 is available in 55 gallon steel non-returnable drums (480 lbs. net) and 5 gallon plastic pails (40 lbs. net). Bulk deliveries are available on special request.

DISCLAIMER

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CVC Thermoset Specialties—844 N. Lenola Road/Moorestown, NJ 08057
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