

DESCRIPTION

Epodil 762 is a tri-functional reactive diluent. It is trimethylol propane triglycidyl ether. Epodil 762 is often used as a lower viscosity alternative to Epodil 733 but also brings improved impact resistance. Epodil 762 provides very good retention of properties.

ADVANTAGES

- Highly compatible with epoxy
- Minimal impact on physical properties
- Minimal impact on cure speed

APPLICATIONS

- 2K adhesives
- Structural composites such as fiberglass reinforced pipe
- Electrical potting and encapsulation
- Industrial coatings

SHELF LIFE

At least 36 months from the date of manufacture in the original sealed container at ambient temperature. Store away from excessive heat and humidity in tightly closed containers.

STORAGE AND HANDLING

Refer to the Safety Data Sheet for Epodil 762 reactive diluent.

TABLE 1: TYPICAL PROPERTIES

Color (APHA)	60 (max)
Viscosity @ 104°F (cP)	90-180
Specific Gravity @ 104°F	1.17
Flash Point (Setaflash) (°F)	>200
Hydrolyzable Chloride (max)	0.3
Residual Epichlorohydrin (ppm max)	8
Weight per Gallon (lb/gal)	9.76
Moisture Content (% max)	0.1
Equivalent Wt/{H}	135-147
Recommended Use Level (phr, EEW=190)	See Table

TABLE 2: SUPPLEMENTARY DATA

Epodil 762 reactive diluent can be used as follows to lower the viscosity of a standard Bisphenol-A liquid epoxy resin (EEW=190) with an initial viscosity of 13,700 cP:

Weight Percent Epodil 762 (%)	Viscosity @ 77°F (cP)
5	9500
10	6700
15	4750
20	3500

EXAMPLE IMPACT OF DILUENT ON A SIMPLE FORMULATED SYSTEM

Evonik recommends that the formulator test reactive diluents in their system for performance. The following data is provided as an example of the impact of the reactive diluent on a simple formulated system.

SYSTEM:

- BADGE with 12.5 wt% Epodil 762
- Cured with Ancamine® 1618 curing agent at 1:1 stoichiometry

Property	Without Epodil 762	With Epodil 762
Persoz hardness² at 23°C (1 day/7day)	195/310	130/306
Phase 3 dry time³ (h)	7:10	8:19
Tg⁴ (1st scan)	51	51
Gel time⁵ (min)	55	50

Footnotes

- (2) BYK Persoz pendulum tester according to ISO 1522 with 10 mil WFT at 23°C/50% RH
- (3) 6 mil WFT BK Drying time recorder according to ASTM D5895 with 6 mil WFT at 23°C/50% RH
- (4) TA Instruments DSC model Q200 first scan data
- (5) 150g mix using TECHNE Gel-timer

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