

**DESCRIPTION**

Epodil 794 reactive diluent is a difunctional reactive diluent for epoxy systems. Epodil 794 is resorcinol diglycidyl ether. Epodil 794 has excellent compatibility with the epoxy system and very good retention of properties. Epodil 794 may crystallize at room temperature but will return to its normal clarity after warming to 100-140°F for approximately 1 hour.

**ADVANTAGES**

- Highly compatible with epoxy
- Minimal impact on flexibility
- Minimal impact on cure speed and gel time

**APPLICATIONS**

- Electrical potting and encapsulation
- Flooring
- 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 794 reactive diluent.

**TABLE 1: TYPICAL PROPERTIES**

<b>Color (APHA)</b>	n/a
<b>Viscosity @ 104°F (cP)</b>	50-610
<b>Specific Gravity @ 104°F</b>	1.21
<b>Flash Point (Setaflash) (°F)</b>	>200
<b>Hydrolyzable Chloride (max)</b>	0.3
<b>Residual Epichlorohydrin (ppm max)</b>	200
<b>Weight per Gallon (lb/gal)</b>	10.09
<b>Moisture Content (% max)</b>	1.0
<b>Equivalent Wt/{H}</b>	118-133
<b>Recommended Use Level (phr, EEW=190)</b>	See Table

**TABLE 2: SUPPLEMENTARY DATA**

**Epodil 794 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:**

<b>Weight Percent Epodil 794 (%)</b>	<b>Viscosity @ 77°F (cP)</b>
5	10,000
10	7750
15	5750
20	4350

**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 794
- Cured with Ancamine® 1618 curing agent at 1:1 stoichiometry

<b>Property</b>	<b>Without Epodil 794</b>	<b>With Epodil 794</b>
<b>Perso hardness<sup>2</sup> at 23°C (1 day/7day)</b>	195/310	169/310
<b>Phase 3 dry time<sup>3</sup> (h)</b>	7:10	7:55
<b>Tg<sup>4</sup> (1st scan)</b>	51	51
<b>Gel time<sup>5</sup> (min)</b>	55	47

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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