

## Product information

# EPODIL<sup>®</sup> 759

## Reactive Diluent

### DESCRIPTION

Epodil 759 reactive diluent is an aliphatic glycidyl ether (C<sub>12</sub>–C<sub>13</sub>). The product is a monofunctional reactive diluent used to reduce the viscosity of epoxy resin systems. Since monofunctional diluents, in general, cause molecular weight chain termination, the minimum amount necessary to achieve the desired viscosity reduction should be used.

Epodil 759 reactive diluent is particularly useful where low volatility levels are required so that potential problems in poorly ventilated areas are minimized. Slight increases in pot life can be expected when Epodil 759 is blended into epoxy systems.

### TYPICAL PROPERTIES

Property	Value	Unit
Appearance	Clear Liquid	
Color	1	Gardner
Viscosity @ 77°F	8	cP
Specific Gravity @ 77°F	0.890	°F
Flash Point (Setaflash)	>200	°F
Hydrolyzable Chloride	max 0.1	
Residual Epichlorohydrin	max 10	ppm
Weight per Gallon	7.3-7.5	lb/gal
Moisture Content	max 0.2	%
Equivalent Wt{H}	285	
Recommended Use Level (EEW=190)	5-25	phr

### ADVANTAGES

- Less likely to crystallize under cold temperatures than other monofunctional diluents
- Increased flexibility
- Increased pot life

## APPLICATIONS

- Laminates
- Civil engineering materials
- Potting compounds
- Flooring

## 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 759 reactive diluent.

## SUPPLEMENTARY DATA

Weight Percent Epodil 759 (%)	Viscosity @ 77°F (cP)
Epodil 746 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 12,500 cP:	
5	5,000
9	2,000
13	1,000
18	500

## 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 759
- Cured with Ancamine® 1618 curing agent at 1:1 stoichiometry

Property	Without Epodil 759	With Epodil 759
Persoz hardness <sup>2</sup> at 23°C (1 day/7day)	195/310	61/278
Phase 3 dry time <sup>3</sup> (h)	7:10	10:00
Tg <sup>4</sup> (1st scan)	51	49
Gel time <sup>5</sup> (min)	55	71

(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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