

Product information

EPODIL[®] 741

Reactive Diluent

DESCRIPTION

Epodil 741 reactive diluent is a technical grade of butyl glycidyl ether. It is a monofunctional reactive diluent used to reduce the viscosity of epoxy resin systems.

TYPICAL PROPERTIES

Property	Value	Unit
Appearance	Clear Liquid	
Color	max 1	Gardner
Viscosity @ 25°C	max 2	mPas
Flash Point (Setaflash)	58	°C
Hydrolyzable Chloride	max 0.1	
Residual Epichlorohydrin	max 10	ppm
Density	0.910	g/cm ³
Moisture Content	max 0.2	%
Equivalent Wt{H}	150	
Recommended Use Level	See Table	

ADVANTAGES

- Maximum viscosity reduction with a minimum loss of properties
- Allows increased filler loading

APPLICATIONS

- Tooling
- Electrical applications
- Flooring, mortars and grouts
- High and 100%-solids 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 741 reactive diluent.

SUPPLEMENTARY DATA

Weight Percent Epodil 741 (%)	Viscosity @ 25°C (mPas)
Epodil 741 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 mPas:	
5	2,000
10	500
15	350
20	150

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 741
- Cured with Ancamine[®] 1618 curing agent at 1:1 stoichiometry

Property	Without Epodil 741	With Epodil 741
Persoz hardness ² at 23°C (1 day/7day)	195/310	98/303
Phase 3 dry time ³ (h)	7:10	7:55
Tg ⁴ (1st scan) (°C)	51	46
Gel time ⁵ (min)	55	82

(2) BYK Persoz pendulum tester according to ISO 1522 with 25 µm WFT at 23°C/50% RH

(3) 150 µm WFT BK Drying time recorder according to ASTM D5895 with 150 µm 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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