

# Technical Data Sheet

## HELOXY™ Modifier 48

### Product Description

HELOXY™ Modifier 48 is a low viscosity aliphatic triglycidyl ether useful in the viscosity, reactivity, and performance modification of epoxy resin systems.

### Application Areas/Suggested Uses

- Fast setting adhesives
- Low temperature curing floor surfacing and concrete patching compounds
- Hard, abrasion resistant clear castings and decoupage systems

### Benefits

- Reduces viscosity but retains reactivity of conventional and polyfunctional epoxy resins
- Imparts hardness and toughness to epoxy systems cured with low functionality curing agents
- Improves solubility/compatibility characteristics of highly aromatic epoxy resins without reducing functionality

### Sales Specifications

Property	Value	Unit	Test Method
Color	2	Gardner	ASTMD1544
Viscosity at 25°C	120 - 180	cP	ASTMD445
Weight per Epoxide	138 - 154	g/eq	ASTMD1652

### Typical Properties

Property	Value	Unit	Test Method
Density	9.55 - 9.7	lbs/gal	ASTMD1475

### General Information

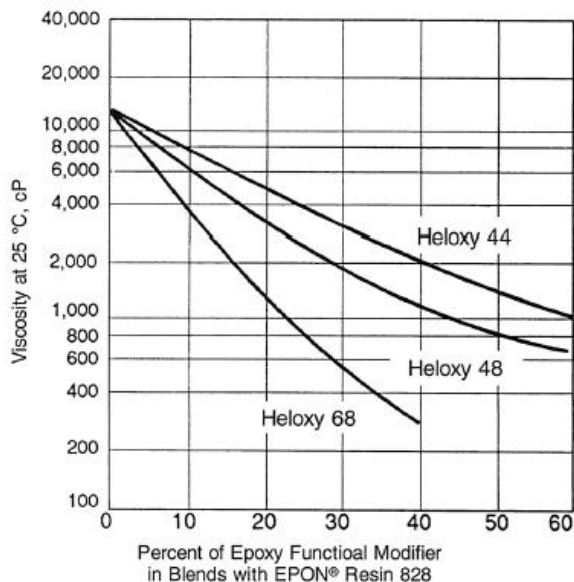
HELOXY Modifier 48 is compatible with all types of epoxy resins and serves to reduce viscosity while preserving reactivity and physical strength. Figure 1 plots the viscosity reduction efficiency of HELOXY Modifier 48. Data listed in Table 1 reflect the effect on reactivity, mechanical, electrical and chemical resistance properties and modifications with this resin.

HELOXY Modifier 48 is an effective modifier for liquid polyfunctional epoxy resins, as viscosity is reduced with a minimal reduction in resin functionality.

In blends with basic liquid epoxy resin, HELOXY Modifier 48 improves the toughness of formulations utilizing low functionality curing agents such as EPIKURE™ Curing Agents 3270 and 3274 by providing a higher cross-link density.

HELOXY Modifier 48 may be used with all classes of curing agents, including aliphatic amines, mercaptans, polysulfides, aromatic amines, and anhydrides. As previously mentioned, this triepoxide is particularly useful in epoxy resin systems cured with low functionality curing agents such as EPIKURE 3270 and EPIKURE 3274.

Figure 1 / Viscosity reduction with HELOXY Modifiers



## Safety, Storage & Handling

Please refer to the MSDS for the most current Safety and Handling information.

Please refer to the Hexion web site for Shelf Life and recommended Storage information.

HELOXY Modifier 48 should be stored in tightly sealed containers, in a dry location at normal room temperatures. As with other epoxy resins, systems containing HELOXY Modifier 48 can crystallize during storage. The tendency to do so is affected by storage conditions, composition and other factors. Should crystallization occur, it may be converted to liquid by opening the drum bung and gently warming to temperatures not to exceed 50 °C (122 °F).

Exposure to these materials should be minimized and avoided, if feasible, through the observance of proper precautions, use of appropriate engineering controls and proper personal protective clothing and equipment, and adherence to proper handling procedures. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheet (MSDS) for these and all other products being used are understood by all persons who will work with them. Questions and requests for information on Hexion Inc. ("Hexion") products should be directed to your Hexion sales representative, or the nearest Hexion sales office. Information and MSDSs on non-Hexion products should be obtained from the respective manufacturer.

## Packaging

Available in bulk and drum quantities.

## Contact Information

For product prices, availability, or order placement, please contact customer service:

[www.hexion.com/Contacts/](http://www.hexion.com/Contacts/)

For literature and technical assistance, visit our website at [www.hexion.com](http://www.hexion.com)