

Technical Data Sheet

HELOXY™ Modifier 68

Product Description

HELOXY™ Modifier 68 is a diglycidyl ether of neopentyl glycol and is primarily used as a reactive diluent or viscosity reducing modifier for all classes of epoxy resins.

Application Areas/Suggested Uses

- To improve air release and wetting characteristics in electrical potting, encapsulation, and impregnation applications.
- To maintain high reactivity yet provide workable viscosity at room temperature when using epoxy novolac or other high functionality epoxy resins.

Benefits

- Reduces viscosity while maintaining most cured state properties
- Improves wetting characteristics
- Facilitates air release

Sales Specifications

Property	Value	Unit	Test Method
Color	1	Gardner	ASTMD1544
Epichlorohydrin	10	mg/kg	SMS 2445
Viscosity at 25°C	13 - 25	cP	ASTMD445
Weight per Epoxide	130 - 145	g/eq	ASTMD1652

Typical Properties

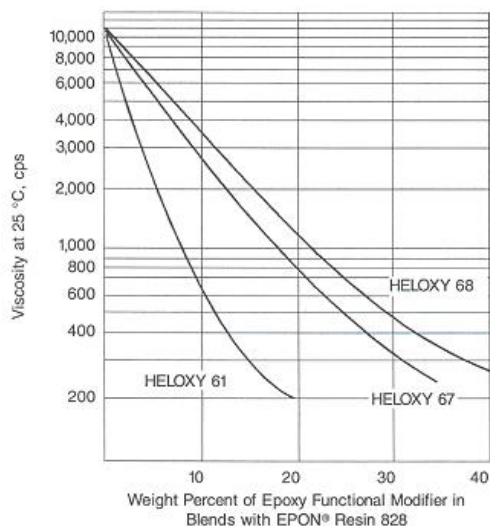
Property	Value	Unit	Test Method
Density	8.8 - 9	lbs/gal	ASTMD1475
Flash Point Setflash	>200	°F	

General Information

HELOXY Modifier 68 is compatible with bisphenol- based epoxy resins, peroxidized olefins, and higher functionality epoxy resins. Concentrations of up to 40 percent of HELOXY Modifier 68 have been employed for viscosity reduction. Performance properties of systems containing this resin are maintained at higher modifier concentrations than is possible with monoepoxide diluents.

Effects of HELOXY Modifier 68 modification on the properties of various EPON™ Resin 828 based systems is demonstrated by data presented in Table 1. Substituting HELOXY Modifier 68 for EPON Resin 828 or other unmodified resins generally results in slight increases in flexibility. As with all diluting modifiers, use of HELOXY Modifier 68 decreases chemical resistance and elevated temperature performance. To minimize such losses, the lowest concentration of HELOXY Modifier 68 necessary to obtain desired reduction in viscosity should be used. The viscosity reduction efficiency of HELOXY Modifier 68 when blended with EPON Resin 828 is compared to that of other HELOXY modifiers by data illustrated in Figure 1.

Figure 1 / Viscosity Dilution Effectiveness of HELOXY Modifiers



When formulating with HELOXY Modifier 68, the concentration of curing agent to be used will likely be different than in the case of an unmodified system. The proper curing agent combining ratio should always be calculated in order to ensure proper stoichiometric balance.

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.

Some epoxy material 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/

For literature and technical assistance, visit our website at www.hexion.com