Technical Data Sheet

EPON™ Resin 160

Product Description

EPON Resin 160 is a multifunctional novolac resin. It combines low viscosity and ease of processing with good thermal stability and chemical resistance for use in a number of applications.

Application Areas/Suggested Uses

- Adhesives
- Electrical encapsulation and transfer molding
- Filament wound laminates
- High temperature molding compounds
- Industrial flooring and coating

Benefits

- Low viscosity for corresponding functionality
- Superior batch-to-batch consistency
- Ease of handling
- Superior chemical resistance
- Good thermal resistance

Sales Specifications

Property	Value	Unit	Test Method
Color	3 max.	Gardner	ASTM D1544
Epoxide Equivalent Weight	168 - 178	g/eq	ASTM D1652
Viscosity at 25°C	345 - 485	P	ASTM D445

Typical Properties

Property	Value	Unit	Test Method
Density at 25°C	9.9	lb/gal	ASTM D1475

Performance Properties

Table 1 / Neat resin properties of EPON™ Resin 160 cured with Ancamine® 1482

	Method	Units	A
EPON Resin 160		pbw	100.0
Ancamine 1482		pbw	23.4
Cure Schedule		hrs/°C	1/80 + 1/121 + 1/177 + 1/200
Cured State Properties [2]			
Heat Deflection Temperature	ASTM D648	°C	152
Tg by Rheometrics [3]	ASTM D3418	°C	173
Tensile Strength	ASTM D638	psi	14,100
Tensile Elongation at break		%	7.0
Tensile Modulus		ksi	459
Flexural Strength at 5% strain	ASTM D790	psi	18,400
Flexural Modulus		ksi	477
Fracture toughness, Kq		psi-in1/2	820

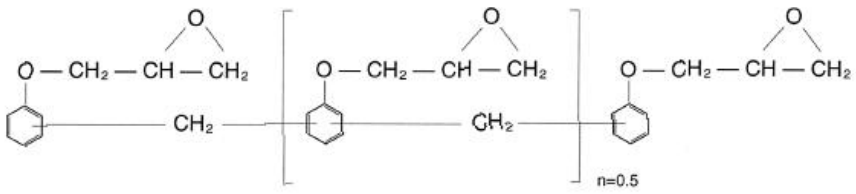
[1] Aromatic amine blend (Registered trademark of Pacific Anchor Chemical Corp).

[2] Cure cycle: 1 hour at 80 °C, 1 hour at 121 °C, 1 hour at 177 °C, 1 hour at 200 °C.

[3] Rheometrics Viscoelastic Spectrometer.

Chemical Description

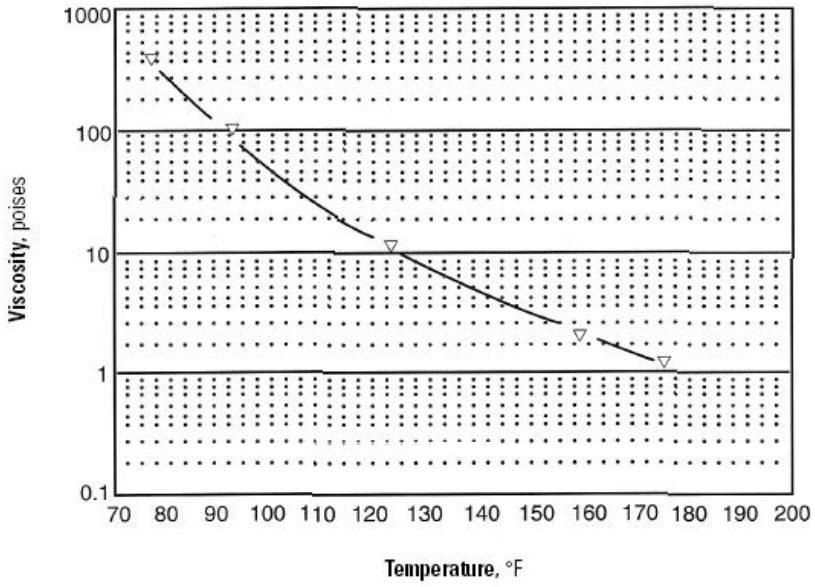
EPON Resin 160 is an epoxy novolac resin with an average functionality of 2.5. Its structure is shown below:



Processing and Performance

EPON Resin 160 is suitable for use with a variety of curing agents. The viscosity of the resin may be reduced by heating to aid in processing. Figure 1 illustrates the effect of temperature on the viscosity of this material. Cure times and temperatures may be varied depending upon the curing agent used and the end use application. Table 1 shows typical neat resin casting properties for EPON Resin 160 when cured with an aromatic amine blend.

Figure 1 / Effect of temperature on EPON™ Resin 160viscosity [1]



[1] BrookfieldThermosel.

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.

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 atwww.hexion.com