


Aditya Birla Chemicals (Thailand) Ltd. (Epoxy Division)
EPOTEC YDF 172
Description

Epotec YDF 172 is a liquid epoxy resin reaction product of Bisphenol F and epichlorohydrin. This resin provides less crystallization tendency compared with standard liquid resin.

A wide variety of curing agents are available to cure this liquid epoxy resin at ambient conditions and also at elevated temperature. When cured with appropriate hardener, epotec YDF 172 gives excellent mechanical, chemical, electrical and adhesion properties. Because of these properties it finds use in various applications.

Applications

- Solvent based, high solids and solvent free coatings
- Adhesives
- Civil engineering and construction industry
- Composites

Specification

Appearance	Visual	Clear, colourless to light yellow liquid
Colour	ASTM D 1544-04	1 G max.
Epoxy Equivalent weight	ASTM D 1652-04	165 – 175 g/eq
Viscosity @ 25°C	ASTM D 2196-05	3,000 – 5,000 cP
Hydrolysable Chlorine	ASTM D 1726-03	0.1 % max

Typical properties *

Epoxide Value	ASTM D 1652-04	5.71 – 6.06
Density @25°C	ASTM D 1475-98	1.18 g/ml
Water content	ASTM E 203-01	0.1 % max
ECH content	TEC-AS-P-023	10 ppm max.
Non-volatile content	ASTM D 1259-06	100 %
Flash point	ASTM D 93	> 150°C

* = Typical properties are indicated for information only

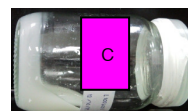
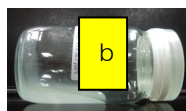
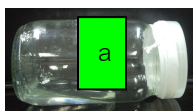
General Information **Data on Crystallization resistance study**

A crystallization resistance study was undertaken on epotec YDF 172. The material was exposed to cycles of temperature fluctuations and observed for change in consistency and physical appearance over a period of 8 weeks. The data so generated is tabulated and presented below -

Week	1			2			3			4			5			6			7			8		
A	a	a	a	a	a	a	a	a	a	a	b	b	b	b	b	b	b	b	b	b	b	b	b	b
B	b	b	c	c	c	c	c	c	c	c	c	c	c	c	c	d	d	d	-	-	-	-	-	-

A = epotec YDF 172

B = Basic bis-F liquid epoxy resin



a = Clear and flow immediately
c = Hazy and can flow in 1 min

b = Hazy but flow immediately
d = Hazy and can not flow

Packing

Epotec YDF 172 is packed and delivered in steel drums, 220 kg per drum as a standard pack. Other packs are available on request.

Storage

Epotec YDF 172 resin should be stored in original tightly closed container, in dry and warm conditions. Under these conditions, it has a storage life of at least two years from the date of manufacturing. Although epotec YDF 172 has much better crystallization resistance than standard epotec YDF 170, in extreme weather conditions it may turn hazy or become crystallized. In such case the resin can be restored to its original condition by warming to 55-60°C while stirring. For handling or pumping the maximum temperature recommended is 80°C.

Handling

Please refer the MSDS of the product for more instructions on safe storage and handling of epotec YDF 172.

Disclaimer

All recommendations for use of our products whether given by us in writing, verbally or to be implied from the results of tests carried out by us are based on the current state of our knowledge. Although, the information contained in this sheet is accurate, no liability can be accepted in respect of such information. We warrant only that our product will meet the designated specifications and make no other warranty either express or implied, including any warranty of merchantability or fitness for a particular purpose as the conditions of application are beyond our control.

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