


Aditya Birla Chemicals (Thailand) Ltd. (Epoxy Division)
EPOTEC TW 5003H
Description

Epotec TW 5003H is an aqueous dispersion of type 7 solid bisphenol A epoxy resin. The dispersion uses proprietary emulsifier and is supplied at 55% solids in water and organic co-solvent. It has medium viscosity and is completely water reducible.

Epotec TW 5003H contains internal emulsifier rather than external emulsifier. This built in emulsifier gives many advantages over externally emulsified products available on market in terms of improved stability, reduced water sensitivity.

Epotec TW 5003H is primarily used for producing metal protective coatings. Amino-plast curing agents are employed for this purpose. Catalyzed DICY can also be employed to develop baking type protective coatings. The curing temperature and time varies depending upon the curing agent used for this purpose.

Applications

- Protective coatings for steel
- Protective coatings for concrete
- Adhesives
- Fibre Sizing
- Textile binder

Specification

Appearance	Visual	White / Milky emulsion
Epoxy Equivalent weight*	ASTM D 1652-04	1,500 – 2,100 g/eq
Viscosity**@25°C	ASTM D 2196-05	7,000 – 17,000 cP
Non-volatile content	ASTM D1259-06	53 - 57 %

* Based on solids

**RVT Brookfield viscometer, spindle 5, 10 rpm

Typical properties

Epoxy content	ASTM D 1652-04	0.47 - 0.55
Density @25 °C	ASTM D 1475-98	1.09 g/ml
Freeze thaw stability	---	> 5 cycles
Solvent	---	Water
Co-solvent	---	13 %

Guideline formulation Clear coat for Metal

Sr. no.	RM	Qty., pbw
1.	Epotec TW 5003H	74.16
2.	Cymel 303	21.86
3.	Cycat 4045	1.65
4.	BYK 420	1.21
5.	BYK 380N	1.12

Performance data

Sr. no.	Property	value
1.	Cure schedule	130°C / 15 min
2.	DFT	30 – 35 µ
3.	Impact (D/R)	100 kgcm
4.	Flexibility conical	6 mm

Packing

Epotec TW 5003H is packed and delivered in plastic drums, 200 kg net per drum as a std. packing.
Other packing is available on request.

Storage

Epotec TW 5003H dispersions should be stored in their original tightly closed containers at temperatures between 5 to 35°C. **Do not freeze the product.** Do not leave the product uncovered for extended periods of time. When stored properly epotec TW 5003H has a shelf life of at least 6 months from the date of manufacture. After extended periods of storage some sedimentation may occur. In such case it is recommended to homogenize the emulsion by gentle agitation prior to use.

Handling

For more instructions on storage and handling of epotec TW 5003H please refer to the MSDS of the product.

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.

For Additional Information, Please Contact:**Aditya Birla Chemicals (Thailand) Ltd. (Epoxy Division)**

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