


**Aditya Birla Chemicals (Thailand) Ltd. (Epoxy Division)**
**EPOTEC THW 4502**
**Description**

Epotec THW 4502 is a water reducible epoxy curing agent designed especially for use in coating applications. In this application epotec THW 4502 gives excellent performance in combination with liquid epoxy resin. Epotec THW 4502 is available as 55% solids in water. It offers capability to formulate zero V.O.C. systems for confined areas

Epotec THW 4502 can be formulated into primers and sealers for concrete wall / floors, primers for metals and general purpose top coats for concrete and metal; it shows good gloss and high hardness in these applications. Epotec THW 4502 is recommended in coating applications at thickness less than 500 mic.

**Applications**

- Metal and concrete coatings
- Primer/Sealer for concrete floors
- General purpose maintenance coatings

**Advantages**

- Water based, solvent free
- No external emulsifier required
- No fire hazard
- Good color
- Good hardness
- Long pot life, suitable for large application areas

**Specification**

Appearance	Visual	Emulsion with medium viscosity
Colour	ASTM D 1544 (89)	Milky emulsion
Viscosity* @25°C	ASTM D 2196 (05)	20,000 – 55,000 cP
Non-volatiles	-	ca. 55 ± 2%

\* Brookfield viscosity

**Typical properties \***

AHEW	-	260 g/eq
Mixing ratio with epotec YD 128 ( EEW = 186 g/eq)	-	100 : 130-150
Density @25°C	ASTM D 1475	1.07 g/cc
Thin film set time @ 25°C	ASTM D 5895	6 – 8 hr

TECHNICAL DATA SHEET

Pot life @25°C (150gm mix)	TEC-AS-P-111	3 hr
Freeze Thaw Test	ASTM D 2243 (95)	> 5 cycles pass
Flash point	ASTM D 93	> 100°C

\* = Typical properties are indicated for information only

**Guideline formulation :**

**White top coat - Gloss**

Sr. No.	RM	Qty. pbw
1.	Epotec THW 4502 <sup>1</sup>	14
2.	BYK 035 <sup>2</sup>	0.31
3.	BYK 380N <sup>2</sup>	0.16
4.	BYK Dynwet 800 <sup>2</sup>	0.16
5.	TiO <sub>2</sub> Rutile	8
6.	Water	5
7.	Epotec YD 128 <sup>1</sup>	10

<sup>1</sup> = Aditya Birla Chemicals, Thailand

<sup>2</sup> = BYK Chemie, Germany

**Performance data**

Property	Unit	Value
Mixing ratio (resin:curingagent)	pbw	100 : 140
Pigment : Binder ratio	pbw	0.57 : 1
Solids content	wt %	60
DFT	μ	50 – 70
Hard dry	hr	12 -18
Gloss 20/60°	GU	60/85
Persoz Pendulum Hardness	no.	220
Impact (D/R)	kgcm	75

TECHNICAL DATA SHEET

Erichsen cupping	mm	6
Flexibility conical mandrel	mm	6
Cross cut adhesiønn	-	GT "0"
MEK DR	no.	50

**Packing**

Epotec THW 4502 is packed and delivered in plastic drums, 200 kg as standard pack.  
Other packs are available on request

**Storage**

Epotec THW 4502 is stable in normal storage conditions. The shelf life of epotec THW 4502 is 12 months from the date of manufacture when stored in original sealed container. It is advised to store the material in cool and dry place away from sources of heat, direct sunlight and ignition. **It is advised to avoid freezing of the product.**

**Handling**

Please refer to the product MSDS for more information on safe storage and handling of epotec THW 4502.

**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:**  
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