



Aditya Birla Chemicals (Thailand) Ltd. (Epoxy Division)

EPOTEC TH 7301**Description**

EPOTEC TH 7301 is a low viscosity, clear, modified cycloaliphatic amine curing agent. When used with epoxy resin in suitable conditions it provides clear, air free, glossy surface. This hardener in combination with epoxy resin is capable to provide resistance to a variety of chemicals such as acid, alkalis, hydrocarbons, water etc. This hardener with epoxy resin can be suitably employed for flooring and coating applications.

Applications

- High solid transparent coatings
- Decorative and self leveling floorings
- Chemical resistant mortars and linings

Advantages

EPOTEC TH 7301 offers the following additional benefits over conventional hardeners

1. Non toxic and solvent free.
2. Allows optimum pot life and gel time and eliminates the possibility of deposition of foreign particles from the environment.
3. Comparatively less sensitive to moisture and provides defect free decorative surfaces.
4. Extremely low shrinkage.
5. Fast attainment of strength at ambient temperature.
6. Good film forming character when cured at ambient temperature.
7. High impact and abrasion.
8. High degree of transparency and gloss with extremely low color.
9. Less irritative and low ammonical odor.
10. Excellent weather and chemical resistant.

Typical properties

Property	Test method	Unit	Specification
Appearance	Visual	-	Colorless liquid
Color	ASTM D 1544-04	Gardner	0.2 Max.
Amine value	TEC-AS-C-058	mgKOH/g	250 - 300
Viscosity @ 25 °C	ASTM D 2196-05	cPs	250 - 380

Typical application properties

Property	Test method	Unit	Specification	
			YD 128*	YD 510**
Mixing ratio	-	By Weight	100 : 60	100 : 58
Mix viscosity @ 25 °C	ASTM D 2196-05	cPs	2,200 - 2,600	1,200 - 1,600
Pot life @ 25 °C (100 gm mix)	TEC-AS-P-111	Minutes	28 - 42	50 - 70
Thin film set time @ 25 °C	-	Hours	6 - 8	7 - 8

*YD 128: Standard Epoxy resin with EEW = 190 g/eq

**YD 510: Reactive diluent modified epoxy resin

Typical performance properties*

Property	Test method	Unit	Specification	
			YD 128	YD 510
Glass transition temperature	ASTM-D-3418 (82)	°C	48 - 55	40 - 45
Tensile strength	ASTM-D-638 (86)	Kg/cm ²	450 - 560	380 - 490
Tensile elongation	ASTM-D-638 (86)	%	2 - 4	6 - 8
Flexural strength	ASTM-D-790 (86)	Kg/cm ²	845 - 1,050	630 - 770
Compressive strength	ASTM-D-695 (85)	Kg/cm ²	630 - 845	500 - 770
Hardness	ASTM-D-2240 (86)	Shore D	80 - 81	81 - 82

*Sample cured with standard Bisphenol A epoxy resin YD 128, (EEW = 190 g/eq) and YD 510 @ 25°C (77°F) for 7 days.

Storage

Storage life at least 12 months from the date of manufacture in original sealed container. Store in good ventilated cool place. Store away from heat and humidity. Hardener TH 7301 is sensitive to moisture thus partly emptied containers should be closed immediately after use.

Handling

Please refer to MSDS for safe handling of EPOTEC TH 7301.

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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