

# Ebalta AH 140 / TC 90-1

Epoxy; Epoxide  
Ebalta Kunststoff GmbH

Message:

ebalta AH 140 is a very thin liquid two-component-epoxy resin with high values of strength and high heat resistance. Due to its very good impregnating and wetting properties it is suitable as laminating resin for high-strength components with fabrics of glass -or carbon fiber. Especially for thin laminates, a post-curing of 16 hours at 80°C, after curing at room temperature, is essential in order to guarantee a complete curing. Otherwise the non post-cured laminate will be brittle and the adhesion of the layers with each other will not be sufficient.

- Applications
- Hand laminating
  - Vacuum infusion
  - carbon fibre sight laminates
  - Laminates for boatbuilding
  - Laminates for automotive industry
  - Laminates for aeronautic
- Properties
- unfilled
  - very thin liquid
  - long processing time
  - high heat resistance
  - high strength
  - excellent wet-out characteristics

General Information			
Features	High Heat Resistance		
	High Strength		
Uses	Aircraft Applications		
	Automotive Applications		
	Laminates		
Appearance	Transparent - Slight Yellow		
Forms	Liquid		
Hardness	Nominal Value		Test Method
Shore Hardness (Shore D)	84 to 90		ISO 7619
Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus	2600 to 3200	MPa	ISO 178
Flexural Stress	115 to 135	MPa	ISO 178
Compressive Stress	105 to 125	MPa	ISO 604
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength	30 to 46	kJ/m²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (0.45 MPa, Unannealed)	107 to 113	°C	ISO 75-2/B
Glass Transition Temperature	114	°C	TMA
Thermoset	Nominal Value	Unit	

Thermoset Components		
Hardener	Mix Ratio by Weight: 32	
Resin	Mix Ratio by Weight: 100	
Post Cure Time		
60°C	4.0 to 6.0	hr
80°C	5.0 to 6.0	hr
120°C	4.0	hr
Uncured Properties	Nominal Value	Unit
Density (20°C)	1.10 to 1.14	g/cm³
Viscosity (25°C)	0.35 to 0.50	Pa·s
Curing Time (20°C)	48 to 72	hr
Pot Life <sup>1</sup> (20°C)	90 to 110	min
NOTE		
1.	200 g	

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