

ALCHEMIX[®] EP 5752 – H25

*Epoxy Resin with Excellent Adhesive Properties
Suitable for Adhesive or Laminating Applications*

ALCHEMIX EP 5752 – H25 is an ambient temperature cure epoxy system exhibiting outstanding adhesion to a wide variety of substrates including steel, aluminium, wood, mineral substrates and many plastics. The system can be used as a laminating resin to produce high performance composite parts using a wide variety of fibre systems, including carbon fibre, glass fibre and aramid fibre. The system has been formulated to ensure efficient wetting of fibres, eliminating air entrapment, dry spots and porosity in the composite part.

Special Features

- Excellent adhesion
- Long working time
- Excellent fibre wetting

Mix Ratio

By Weight EP 5752 : H25
 100 : 50

Product Data

Property	Units	EP 5752	H25	Mix
Material	-	Epoxy Resin	Formulated Amine	-
Appearance	-	Pale Liquid	Amber Liquid	Amber Liquid
Viscosity (25°C)	mPa.s	1300 – 1800	400 – 700	1100 – 1500
Density (25°C)	g/cm ³	1.12 – 1.17	0.93 – 0.97	1.05 – 1.10

Technical Data Sheet

Working Time and Cure Speed

Property	Units	Typical Value
Pot life (200g, 25 °C)	Minutes	50 – 70
Cure Time (200g, 25 °C)	Hours	24
Full Cure (25 °C)	Days	7
Minimum Curing Temperature	°C	18

Cured Properties

Properties	Standard	Units	Typical Value (Full Cure)
Hardness	BS EN ISO 868	Shore D	78 – 82
Tensile Strength	BS EN ISO 527	MPa	43.0 – 47.0
Elongation at Break	BS EN ISO 527	%	4.0 – 6.0
Tensile Modulus	BS EN ISO 527	MPa	1200 – 1400
Flexural Strength	BS EN ISO 178	MPa	62.0 – 66.0
Flexural Modulus	BS EN ISO 178	MPa	1500 – 1800
Glass Transition Temperature (Tg)	DMA	°C	63 – 67

Method of Use

Preparation

Before use ensure that the resin, fibre or filler and gelcoat (if applicable) are compatible. For advice on the choice of gelcoat or suitable tooling systems, please contact Alchemie Ltd.

If applying as an adhesive, ensure that the surface to be coated has been properly prepared. The surface should be clean; all dust, oil, grease and other contaminants should be removed. Abrading the surface will aid adhesion and ensure that no contamination is present.

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Mixing and Application

Thoroughly mix the resin and the hardener according to the indicated mixing ratio, avoid air entrapment and ensure that the material at the bottom and sides of the container is well stirred into the centre. The two components should be mixed and applied within the pot life.

Cure and Post Cure

Lower ambient temperatures will result in slower cure. The product should always be processed and cured at temperatures above the minimum curing temperature of 18 °C.

The system can be used after curing at room temperature, but in order to achieve full high temperature properties, a step wise post cure treatment is recommended. Allow the product to cure at room temperature for at least 24 hours, then heat to 60 °C for 1 hour, followed by 80 °C for 3 hours. To prevent any distortion during the post cure cycle, the unit should be placed on a conformer. When post-curing is complete, let the unit cool down slowly to room temperature, preferably in the oven. Sudden change in temperature can cause distortion or warping.

Storage

ALCHEMIX EP 5752 and HARDENER H25 should be stored in original, unopened containers between 15 and 25 °C.

If stored under the above conditions, ALCHEMIX EP 5752 and HARDENER H25 will have a shelf life of 12 months, from the date of production.

Packaging

EP 5752 is supplied in 1kg, 5kg, 25kg and 200kg containers
H25 is supplied in 500g, 2.5kg, 12.5kg and 200kg containers.

(Please contact Alchemie Ltd for bulk supply)

Technical Data Sheet

Further Information

This data is not to be used for specifications. Values listed are for typical properties and should not be considered minimum or maximum.

Our technical advice, whether verbal, or in writing is given in good faith, but without warranty – this also applies where proprietary rights of third parties are involved. It does not release you from the obligation to test the products supplied by us as to their suitability for the intended process and use.

Before using any of our products, users should familiarise themselves with the relevant Technical and MSDS provided by Alchemie Ltd.

Alchemie Limited

Alchemie Ltd develops, formulate and distribute Epoxy Resins, Polyurethane Resins, Silicones, Model Boards and Sheet Wax for use in the following applications:

- Electrical Encapsulation
- Rapid Prototyping
- Prototypes
- Casting
- Gel Coating
- Laminating
- Model Making
- Master Models
- Flexible and rigid mould making

We offer fast service, technical support, development expertise, innovative products, diverse knowledge and experience.

We are a well-established company, with a high level of investment and experience. We implement BS EN ISO 9001.

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