

ALCHEMIX[®] EP 571 – H3 / H8

*High Temperature Epoxy Resin System
87 – 95 Shore D Hardness*

ALCHEMIX EP 571 is a high temperature laminating resin system. It has low viscosity, enabling good wetting of fibres and fillers. A superior modified resin system, possessing good heat distortion resistance, used with HARDENER H3 or H8 either singly or blended produces versatility in pot life and cure time.

ALCHEMIX EP 571 is formulated for applications such as RIM tooling, marine, aerospace, vacuum forming tooling and other applications requiring high heat dimensional stability.

Mix Ratio

	EP 571	:	H3	H8
By Weight	100	:	25	
By Weight	100	:		25

Product Data

Property	Units	EP 571	H3	H8
Material	-	Epoxy resin	Formulated amine	Formulated amine
Appearance	-	Clear liquid	Straw colour liquid	Straw colour liquid
Viscosity (25°C)	mPa.s	1600 – 2400	150 – 250	30 – 60
Density (25°C)	g/cm ³	1.13 – 1.18	0.98 – 1.03	0.93 – 0.97
Mixed Viscosity (25°C)	mPa.s	-	1300 – 1800	800 – 1300
Mixed Density (25°C)	g/cm ³	-	1.10 – 1.15	1.09 – 1.14
Pot Life (200g, 25°C)	Mins	-	40 – 50	120 – 140

Cured Properties

Properties	Standard	Units	H3 (Post Cured)	H8 (Post Cured)
Hardness	BS 2782: Part 3: Method 365B	Shore D	87 – 92	90 – 95
Tensile Strength	BS 2782: Part 3: Method 320B	MPa	25 – 35	20 – 30
Elongation at Break	BS 2782: Part 3: Method 320B	%	3 – 4	2 – 3
Flexural Strength	BS 2782: Part 3: Method 335A	MPa	85 – 95	110 – 120
Flexural Modulus	BS 2782: Part 3: Method 335A	MPa	2300 – 2700	2600 – 3000
Heat Distortion Temperature (HDT)	TMA	°C	130 – 135	135 – 140

Above values refer to pure resin, properties of the laminate will differ and will depend on the reinforcements used.

Method of Use

Preparation

Before use ensure that the resin, fibre or filler and Gelcoat are compatible. For advice on the choice of Gelcoat and for processing instructions, please contact Alchemie Ltd.

Mixing Instructions

Thoroughly mix the resin and the hardener according to the indicated mixing ratio, avoiding air entrapment and make certain that the material at the bottom and sides of the container is well stirred into the centre. The mixed material should be used within the stated pot life. Please note that the pot life is mentioned for 200g test sample mixing larger quantities will shorten the pot life similarly smaller quantities will increase the pot life.

Curing and Post Curing

To achieve full high temperature properties, post cure treatment is recommended. Allow the product to cure at room temperature for at least 24 hours and then heat to 60°C for 1 hour, followed by 100°C for 1 hour, followed by 120°C for 5 hours. Then allow the product to slowly return to room temperature. The product can be used without post cure or with partial post cure, but will not achieve full physical properties.

Storage

ALCHEMIX EP 571, HARDENER H3, and HARDENER H8 should be stored in original, unopened containers between 15 and 25°C. KEEP THE PACKING TIGHTLY SEALED WHEN NOT IN USE.

If stored under the above conditions, ALCHEMIX EP 571, HARDENER H3, and HARDENER H8 will have a shelf life of 12 months, from the date of production.

Packaging

ALCHEMIX EP 571 is supplied in 5kg, 20kg and 200kg containers.
HARDENER H3 is supplied in 1.25kg, 5kg and 12.5kg containers.
HARDENER H8 is supplied in 1.25kg, 5kg and 12.5kg containers.

(Please contact Alchemie Ltd for bulk supply)

Further Information

All data listed relates to typical values. This data should not be considered a product specification.

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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