

Resin EP 4622 Hardener H 60

FEATURES

- Thermal shock resistance
- Dielectric properties
- Thermal conductivity
- UL 94 V-0

COMPOSITION

- Part A: epoxy resin EP 4622
- Part B: hardener H 60



Modified, solvent free epoxy resin with inorganic filler and formulated low viscosity amine hardener, room temperature curing. Flame retardant, good dielectric properties, excellent thermal shock resistance, high thermal conductivity, casting system. Hardener also available in black.

APPLICATIONS

- Designed for small transformers, filters, capacitors, coils, electronic circuits.

TYPICAL PROPERTIES

Specifications writers: These values are not intended for use in preparing specifications. Please contact your local sales representative prior to writing specifications on this product.

Property	Unit	Value
Colour (Resin A/Hardener B)	visual	White / Yellow
Density at 23°C (Resin A/Hardener B)	g/cm ³	1.62 – 0.99
Viscosity at 23°C (Resin A/Hardener B)	mPa.s	41540 / 45
Colour (Mixture)	visual	Beige
Density at 23°C (Mixture)	g/cm ³	1.53
Mixing ratio	pbw	100 : 13
Mixing ratio	pbv	100 : 20
Pot life at 23°C (150g)	minutes	40
Gel-time at 23°C (150g)	minutes	60
Hardness	Shore D	86
Tensile strength	MPa	31.1
Deformation at break	%	3.8
Flexural modulus	MPa	4030
Flexural strength	MPa	44.1
Compressive strength	MPa	37.7
Glass transition (DSC)	°C	46
Linear shrinkage	%	0.12
Thermal conductivity	W/mK	0.67
Thermal class		B
Flammability test UL 94 V-0 (4mm)		Passed
Glow-wire test (850°C)		Passed
Water absorption 1 day @23°C	% by wt.	0.15
Water absorption 30 mins @100°C	% by wt.	0.47
Dielectric strength (2mm)	kV/mm	28
Dielectric loss factor	%	3.5
Dielectric constant		4.6
Volume resistivity	Ω cm	10 ¹⁴

SETTINGS

EP4622 contains fillers, which tend to settle over time. We recommend to use extreme care in re-homogenize the product in the container before use. Measure by weight or volume Resin and Hardener. Stir thoroughly until mixing is complete. Mix under vacuum or in a metering-mixing machine to prevent air entrapment. Alternatively degas the mixture in a vacuum chamber after mixing. Epoxy resins can crystallize at low temperature. To bring them back to their original condition heating at 40°C-50°C avoiding local overheating, then cool to room temperature.

MIXING

The two components should be thoroughly mixed using a ratio of 100:13 by weight or 100:20 by volume, until a homogeneous mixture.

POTLIFE AND GELTIME

When the two components are thoroughly mixed in the right mixing ratio the reaction starts. The pot life, or usable time of the mixture, is normally the time required for an increase equal to twice the initial viscosity. Both Pot-life and Gel-time are depending on the mass and temperature: higher the mass faster the reaction. Higher the temperature faster the reaction.

CURING

The system polymerizes at room temperature but the following cycle is recommended:

24 hours at RT + 6 hours at 60°C

HANDLING PRECAUTIONS

The information for a correct and safe handling of the products are contained in

the safety data sheet. Consult the safety data sheets before use for complete information on the risks for health and environment and for suitable protective devices to be adopted. Share the safety data sheets with all the staff involved in the use of the products.

PACKAGING

Resin is supplied in 5kg and 25kg containers, hardener in 4kg containers.

USABLE LIFE - STORAGE

Resin and hardener must be stored in the original unopened containers at a temperature between +10°C and +35°C. Be sure to close the containers after use. Resin and hardener, if stored under certain conditions, have a shelf life of 6 months from the date of manufacture.

LIMITATIONS

This product is neither tested nor represented as suitable for food contact, skin contact or medical uses.

LIMITED WARRANTY

The information contained in this document is offered in good faith based on Chemix research and is believed to be accurate. However, as the conditions and methods of use of our products are beyond our control, this information should not be used as a substitute for the tests that customers must first perform to ensure that Chemix products are fully satisfactory for their specific applications. The warranty is only applicable to the values indicated in the Product Sales Specifications. The sole and exclusive compensation for products with values that are out of specification is limited to the replacement of the product or the refund of the purchase price.

Chemix disclaims any other explicit or implicit guarantee referring to the suitability of the Products in specific user's applications.

Chemix disclaims any liability for incidental or consequential damages resulting from the use of the Product.

www.chemix.it

Chemix Srl Via Berlinguer 8, 21010 Golasecca (Italy). Phone +39(0)331959373 info@chemix.it