

# Product information

## Hardeners

# H24

## FEATURES

- Adhesion on wood, metal, glass
- Long potlife
- High thermal resistance
- Hardener for epoxy resins
- Accelerator for anhydride and dicyandiamide

## COMPOSITION

- 2,4-Ethyl Methyl Imidazole C<sub>6</sub>H<sub>10</sub>N<sub>2</sub>



H24 is a low melting, low volatility, high reactivity imidazole based hardener designed for use as a hardener for epoxy resins and accelerator for dicyandiamide, anhydrides and other latent systems.

## APPLICATIONS

- Suitable for the production of printed circuit laminates, structural adhesives, electronic encapsulation and filament winding.

## TYPICAL PROPERTIES

This data does not constitute the Product Sales Specifications. The values indicated refer to typical properties and are not to be understood as extreme minimum or maximum values. They do not constitute a guarantee of product conformity and do not relieve the buyer from the need to test the suitability of the products before use or placing them in his production cycle. Please contact your local sales representative to obtain the product specifications.

Property	Unit	Value
Aspect	Visual	Solid
Color	Apha	10 max
Density	g/cm <sup>3</sup>	1.017
Molecular weight		110.2
Purity	%	83.0 – 86.0
Active imidazoles content	%	95
Water content	%	0.25 max
Melting point	°C	36 – 42
<b>Curing with epoxy resin EP506 (EEW 190)</b>		
Mix ratio (EP506 : H24)	% in weight	100 : 2
Activation temperature (DSC)	°C	95
Gel time at 25°C (150g)	Minutes	540
Gel time at 70°C (150g)	Minutes	33
Gel time at 100°C (150g)	Minutes	4
Hardness	Shore D	87
Tensile strength	MPa	16.9
Elongation at break	%	3.2
Flexural strength	MPa	50.0
Flexural modulus	MPa	2540
Compressive modulus	MPa	1980
Linear shrinkage (500x50x10mm)	%	0.58
Tg (DSC)	°C	158
<b>Curing with epoxy resin EP506 (EEW 190) and anhydride H86</b>		
Mix ratio (EP506 : H86 : H24)	% in weight	100 : 85 : 2
Mixture stability at 23°C	days	2 - 3
Onset (DSC)	°C	116
Hardness	Shore D	85
Tensile strength	MPa	51.4
Elongation at break	%	6.7
Flexural strength	MPa	134
Flexural modulus	MPa	2890
Compressive modulus	MPa	2900
Glass transition Tg	°C	139

## SETTINGS

H24 has a melting point of 36-42°C. Heat to 40-50°C until completely melted. Mix in the proportions indicated until a homogeneous mixture is obtained.

## POST CURING

To allow the material fully reach its properties, the following heat treatment is recommended: 2 hours at +80°C, followed by 4 hours at + 150°C. Post harden in the oven, in the mold or on a conformer, then cool slowly to room temperature.

## HANDLING PRECAUTIONS

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

## SAFETY

Harmful if swallowed. It can cause burns.

## PACKAGING

H24 is supplied in 5kg packs and 25kg packs.

## USABLE LIFE - STORAGE

H24 has a duration of 24 months if stored in a protected place at room temperature. Protect from sources of ignition, acids and acid-forming substances. Be sure to close the containers after use.

## LIMITATIONS

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

## LIMITED WARRANTY

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