

IMICURE[®] EMI-24

Curing Agent

DESCRIPTION

Imicure EMI-24 curing agent is 2-ethyl-4-methyl Imidazole a high reactivity low melting imidazole designed for use as a latent curing agent/curing accelerator for epoxy resins.

The low volatility and high reactivity as an accelerator for dicyandiamide coupled with high mechanical and electrical properties when cured make Imicure EMI-24 suitable for the manufacture of printed circuit board laminates, structural adhesives and solder resist inks. Imicure EMI-24 is also a highly efficient accelerator for anhydride cured epoxies for electronic encapsulation and filament winding applications.

It is also an efficient curing agent in its own right for the manufacture of varnishes and conductive paints.

TYPICAL PROPERTIES

Property	Value	Unit	Method
Appearance	Pale Yellow Crystalline Solid		
Melting Point	36-42	°C	
Purity	87-92	%	
Free Water	< 0.25	%	K Fischer
Molecular Weight	110	g/mol	
Recommended use Level	1 - 4	PHR	With Bisphenol A diglycidyl ether (EEW=190)

ADVANTAGES

Imicure EMI-24 curing agent provides the following advantages over other imidazole and amine curing agents and accelerators:

- **Printed Circuit Board Laminates**

Shorter B-stage cure times, reduced solvent requirements, excellent glass transition (T_g) temperatures

- **Filament Winding Application**

Long pot life, excellent physical properties, high heat distortion temperatures

- **Casting Applications**

Long pot life, ease of handling, high heat distortion temperatures

- **Adhesives**

Outstanding adhesion to wood, metal and glass

- **Coatings**

Excellent shelf stability

SHELF LIFE

At least 24 months from the date of manufacture in the original sealed container at ambient temperature.

STORAGE AND HANDLING

Refer to the Safety Data Sheet for Imicure EMI-24 curing agent.

TYPICAL HANDLING PROPERTIES (2PHR)

Property	Value	Unit	Method
Gel Time (200g mix) @ 25°C	540	min	Techne GT-3 Gelation Timer
Gel Time (200g mix) @ 70°C	33	min	Techne GT-3 Gelation Timer
Gel Time (200g mix) @ 100°C	4	min	Techne GT-3 Gelation Timer
DSC Activation Temperature	95	°C	Heating rate 10°C/min

TYPICAL CURE SCHEDULE

(i) 30 min @ 120°C
(ii) 2h @ 80°C + 4h @ 150°C

TYPICAL PERFORMANCE PROPERTIES *

Property	Value	Unit	Method
Compressive Strength	174	MPa	ISO 604
Tensile Strength	62	MPa	ISO 527
Flexural Strength	118	MPa	ISO 178
Heat Distortion Temperature	156	°C	ASTM D648

* 2 h @ 80°C plus 4 h @ 150°C

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