Product information

ANCAMINE® 2014AS AND 2014FG

Curing Agent

DESCRIPTION

Ancamine 2014AS and Ancamine 2014FG are modified aliphatic polyamine adducts designed for use as a latent catalyst and curing agent for liquid epoxy resins. They can also be used as accelerators for dicyandiamide (DICY). Ancamine 2014FG is a finer particle size version of Ancamine 2014AS. Compared to Ancamine 2014AS, Ancamine 2014FG exhibits greater reactivity at moderate cure temperatures (80-100°C) coupled with improved adhesive strength both in the presence and absence of dicyandiamide. Ancamine 2014AS provides outstanding latency and rapid cure above its activation temperature and excellent adhesion to metals and plastics.

TYPICAL PROPERTIES

Property	Value	Unit
Appearance	White micronised powder	
Amine value	180-190	
Free Water	max 0.5	%
Specific Gravity @ 25°C	0.23	
Melting size		
2014AS	90% <36	microns
2014FG	90% <6	microns
Recommended Use Level phr (EEW=190)	25-30	

ADVANTAGES

Ancamine 2014AS is an excellent accelerator/synergist for latent amine curing agent catalyst combinations including dicyandiamide, imidazoles, uron co-catalysed dicyandiamide and imidazole co-catalysed dicyandiamide. It is provided in finely pulverised powder form to facilitate dispersion in liquid epoxy resin by simple hand mixing. The latency characteristic - moderate temperature reactivity and early development of adhesive strength during cure - make Ancamine 2014FG an excellent curing agent or accelerator for dicyandiamide in adhesive applications where high temperature heat cures are not possible.

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APPLICATIONS

• One-component adhesives
• Solvent free laminating
• Potential application areas for Ancamine 2014FG include metal-to-metal, plastic-to-metal, plastic-to-plastic bonding and solvent-free laminating application.

SHELF LIFE

At least 24 months from date of manufacture in original sealed container stored undercover at ambient temperature away from excessive heat and humidity.

STORAGE AND HANDLING

Refer to the Safety Data Sheet for Ancamine 2014AS and Ancamine 2014FG curing agent.

CATALYTIC USAGE

3-7 phr with resin EEW 190 with 4-8 phr dicyandiamide 2-3 phr phr with resin EEW 190 with 4-8 phr dicyandiamide and 3-5 phr uron or imidazole

TYPICAL HANDLING PROPERTIES (AT 28 PHR)

Property	Value	Unit
Gel time (1g mix at 77°C), mins	25	mins
Pot life (150 mix @ 40°C), mths	112	mths
DSC activation temperature, °C	75	°C

TYPICAL PERFORMANCE PROPERTIES

Property	Value	Unit
Glass Transition Temperature	75	°C
Lap Shear Strength		N/mm^2
2014FG (at 28 phr)		
30 mins at 80°C	3.7	
30 mins at 100°C	6.1	
30 mins at 120°C	7.4	
30 mins at 140°C	10.3	
Weight gain after 3 h in boiling water	1.0	%

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