

# AMICURE<sup>®</sup> UR

## Curing Agent

### DESCRIPTION

Amicure UR cure accelerator is a substituted urea-based accelerator (1 Phenyl 3,3 dimethyl urea) for dicyandiamidecured epoxy resins. It combines excellent latency at ambient temperature with rapid cure in systems heated above its activation temperature.

Amicure UR cure accelerator is supplied as a micropulverized crystalline solid which is easily dispersed into liquid epoxy resin. It is also available on a custom basis in different mean particle sizes with or without the addition of fumed silica as a free flow agent.

### TYPICAL PROPERTIES

Property	Value	Unit	
Appearance	White Powder		
Melting Point	130-133	°C	
Assay	97	%	
Recommended Use Level (phr, EEW=190)	0.5-3.0 parts with 4.0-8.0 parts dicyandiamide		
Solubility in Water	< 0.5	%	

### ADVANTAGES

- Rapid cure and property development
- High glass transition temperature
- Good one-pack shelf stability
- Good flow properties

### APPLICATIONS

- One-pack paste and film adhesives
- Heat-cure composites
- Prepreg composites

### STORAGE AND HANDLING

Refer to the Safety Data Sheet for Amicure UR curing agent.

## SHELF LIFE

At least 24 months from the date of manufacture in the original sealed container at ambient temperature. Store away from excessive heat and humidity in tightly closed containers.

## TYPICAL CURE SCHEDULE

**45-60 minutes at 265°F (130°C).**

## TYPICAL PERFORMANCE

### Formulation

Bis-A liquid resin	100.0	(EEW=190)
Amicure CG-1200	6.0	
Amicure UR	2.0	

### Lap Shear Strength (psi)\*

Cure Temp.	Cure Time (min)					
	5	10	15	20	30	40
275°F (135°C)	—	—	2,892	—	3,053	3,164
300°F (150°C)	—	3,090	—	3,156	3,360	—
320°F (177°C)	3,177	3,685	—	4,495	—	—

\* Lap points were prepared using chromic acid solution etched 2024-T3 1"x4" aluminum coupons with ½" overlap and 10 mils bond line thickness.

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