Technical Data Sheet

Phenalkamine Curing Agent Metacure® SH3460L

Revision: July 2026

Product Description

Metacure® SH3460L is a modified Phenalkamine-based low-viscosity curing agent. This curing agent is designed to cure broad bands of epoxy resins, especially at low temperatures, high humidity, and underwater, besides splash zone conditions. Designing specialized low-viscosity characteristics makes it appropriate for utilization in solvent-free and solvent-based epoxy coatings. This curing agent is used in protective anticorrosion applications, especially in marine and industrial environments.

Application Areas

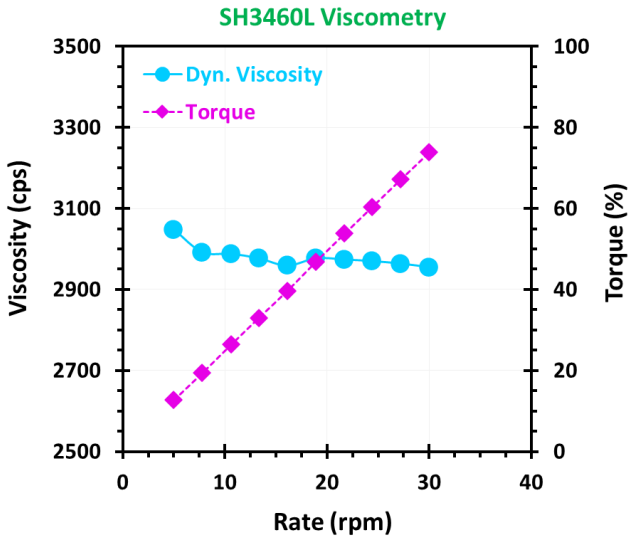
- Underwater and splash zones coating and putty
- Industrial, marine, and pipeline paints and coatings
- Pipe and tank linings

Benefits

- Low viscosity and good flowability
- Excellent adhesion to all types of surfaces
- Excellent chemical and corrosion resistance
- Suitable pot-life at both ambient and low temperatures
- Long pot life for underwater applications
- Excellent performance even in very high humidity (>90%)
- Very good low-temperature performance
- Excellent resistance to seawater (suitable for Splash zone applications)
- Moisture & low-temperature tolerant during cure

Safety, Storage & Handling

Keep Metacure® SH3460L away from sunlight and fast temperature changes in dry and cold warehouses (20°C). Under these conditions, the shelf life should be a minimum of 12 months from the date of production.



Curing properties: Dry Environment

Property	Unit	Value	Test Method/Standard
Thin Film's Set Time @ 25°C	hr	6	ASTM D5895
Thin Film's Full Cure @ 25°C	day	7	ASTM D5895
Thin Film's Set Time @ 5°C	hr	12	ASTM D5895
Thin Film's Full Cure @ 5°C	day	14	ASTM D5895

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Curing properties: Underwater

Property	Unit	Value	Test Method/Standard
Thin Film's Set Time @ 25°C	hr	12	ASTM D5895
Thin Film's Full Cure @ 25°C	day	14	ASTM D5895

Product Specification

Property	Unit	Value	Test Method/Standard
Appearance	-	Reddish Brown Liquid	Visual
Viscosity (23 °C, L3 Spindle, 5-30 rpm)	Pa.s	2.8 – 3.1	ASTM D445
Density at 25 °C	kg/l	1.15	ASTM D792
Color	Gardner	< 17	ASTM D1544
Glass Transition Temperature (T_g)	°C	50	DIN 11357
Amine Hydrogen Equivalent Weight (AHEW)	g/eq	120 – 130	ISO 9702
Amine value	mg KOH/g	290 – 320	DIN 16945
Recommended proportion with Epoxy EPON 828, EEW=185-192 g/eq	Phr*	63 – 69	Calculated
Pot life at 25±1 °C, 50 g	min	30 – 35	-
Non-Volatile Content	%	100	ASTM D1353

*phr: parts per hundred of resin

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