Technical Data Sheet

Phenalkamine Curing Agent Metacure® SH3460FS

Revision: July 2026

Product Description

Metacure® SH3460FS is a modified Phenalkamine-based fast-setting 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. It can be used with solvent-free and solvent-based epoxy resins. This curing agent is used in protective anticorrosion applications, especially in marine and industrial environments.

Application Areas

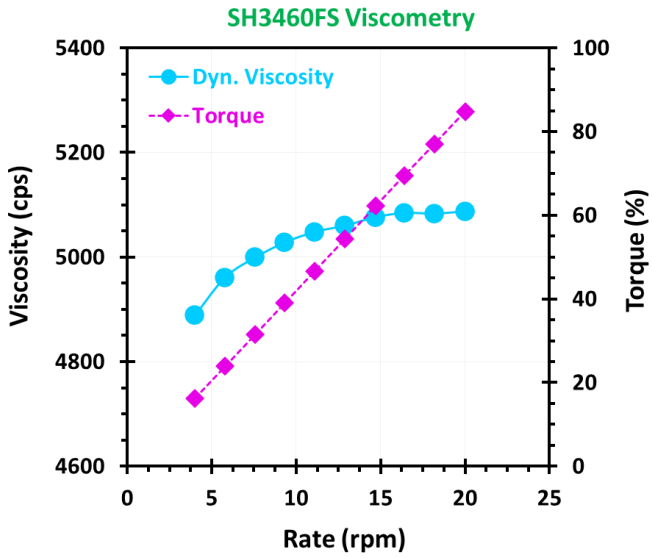
- Underwater and splash zones coating and putty
- Industrial, marine, and pipeline paints and coatings
- Pipe and tank linings

Benefits

- Fast curing and low-viscosity features
- Excellent adhesion to all types of surfaces
- Excellent chemical and corrosion resistance
- Short pot life at both ambient and low temperatures
- Suitable 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

The shelf life of Metacure® SH3460FS is 12 months if unopened and stored free from frost, moisture, and direct sunlight. Keep the container in the temperature range between +10 and +30 °C.



Curing properties: Dry Environment

Property	Unit	Value	Test Method/Standard
Thin Film's Set Time @ 25°C	hr	4	ASTM D5895
Thin Film's Full Cure @ 25°C	day	7	ASTM D5895
Thin Film's Set Time @ 5°C	hr	10	ASTM D5895
Thin Film's Full Cure @ 5°C	day	14	ASTM D5895

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All statements, technical information and recommendations contained herein are based on tests and data which we believe to be reliable, but the accuracy or completeness thereof is not guaranteed and no warranty of any kind is made with respect thereto.

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Curing properties: Underwater

Property	Unit	Value	Test Method/Standard
Thin Film's Set Time @ 25°C	hr	10	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, 4-20 rpm)	Pa.s	4.8 – 5.2	ASTM D445
Density at 25 °C	kg/l	1.14 – 1.16	ASTM D792
Color	Gardner	< 17	ASTM D1544
Glass Transition Temperature (T_g)	°C	50 ± 1	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 EPON 828, EEW=185-192 g/eq	Phr*	63 – 69	Calculated
Pot life at 25±1 °C, 50 g	min	20 – 25	-
Non–volatile Content	%	100	ASTM D1353

*phr: parts per hundred of resin

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