

Cardolite® NC-540

Epoxy Curing Agent

Technical Datasheet

DESCRIPTION

Cardolite® NC-540 is a unique type of epoxy resin hardener known as a phenalkamine. The distinctive structure of phenalkamines imparts a unique combination of desirable properties to the curing agents and the coatings, adhesives, and castings derived from them. Phenalkamines exhibit rapid cure, even at low temperatures with a workable pot-life and the ability to resist moisture while curing, making them ideal for all season cure, surface tolerant coatings. Phenalkamines are accepted for use in coatings for potable water contact in several countries.

TYPICAL PROPERTIES

	TYPICAL VALUE	SPECIFICATION
Viscosity @ 25°C (cPs)	2500	2000-3000
Amine Value (mg KOH/g)	-	490-550
Active Hydrogen equivalent (AHEW)	81	-
Flash point (closed cup)	>107°C/225°F	-
Density @ 25°C lbs/gal (kg/l)	8.34 (0.99)	8.20 (0.97) – 8.40(1.0)
Appearance	Reddish brown liquid	
Color (Gardner)	-	13-17 max
% Solids (1 hr @ 105°C)	-	>95
Recommended PHR (liquid epoxy resin, EEW=190)	30-40	-
Volatile Loss (%)	-	4.0 max

APPLICATIONS

Cardolite® NC-540 is suitable for high solids and solvent-free surface tolerant marine, industrial maintenance, tank lining, pipe coatings, and coatings over concrete. It can be used for coating applications under cold and damp conditions, even over damp and poorly prepared surfaces.

ADVANTAGES

- Excellent combination of rapid cure and long pot-life at both ambient and low (<40°F) temperatures
- Non critical mix ratio
- Good adhesion to poorly prepared surfaces
- Outstanding chemical resistance
- Compatible with most resins and solvents
- Solvent free
- Based from natural renewable raw material feedstock

CURE PROPERTIES

FORMULATION	A	B
Liquid Epoxy Resin (EEW 190) (pbw)	100	100
Cardolite® NC-540 (pbw)	30	40
Mix viscosity @ 21°C (cPs)	7800	4800
Gel time, 100 g @ 25°C (min)	49	42
Thin film set times, 8 mils (200micron)		
@ 75°F (24°C) (hrs)	11	9
@ 42°F (5°C) (hrs)	22	19
@ 32°F (0°C) (hrs)	44	36
Cure rate / Film appearance @ 42°F (5°C) & 100% RH	Not affected / heavy blush	

APPROVALS AND REGULATORY STATUS

TSCA, EINECS, NICNAS AICS, MITI, PICCS

SAFETY PRECAUTIONS

Please refer to the material safety data sheet (MSDS).

STORAGE & STABILITY

Cardolite® Epoxy curing agents will absorb moisture and carbon dioxide when left in open containers. This may result in increased viscosity and some crystallization of the products. Therefore, all containers of these products should be kept tightly closed when not in use and stored inside in a cool, dry place. Properly protected from moisture and air, this product has a shelf life of 12 months.

CONTACT INFORMATION



Cardolite

The World Quality Leader in Cashew Liquid Technology

Cardolite Corporation
500 Doremus Avenue
Newark, NJ 07105
United States of America

T: +1-973-344-5015
F: +1-973-344-1197
<http://www.cardolite.com>

Cardolite Europe N.V.
Offerlaan 116-118
B 9000 Gent
Belgium

T: +32-(9)-265-8820
F: +32-(9)-265-8829

Cardolite Chemical Zhuhai Ltd.
Biyang Road
Harbor Industrial Zone
Zhuhai, Guangdong 519050
P.R. China

T: +86-756-726-9066
F: +86-756-726-9067

DISCLAIMER

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed. Limitation of liability and remedy: Purchase or use of these products constitutes an agreement with seller and manufacturer that, if the product proves to be defective or unsuitable, seller's and manufacturer's liability and the exclusive remedy, regardless of tort or contract theory or of incidental or consequential damages shall be to receive, at seller's or manufacturer's option, an equivalent quantity of replacement product or a refund of the purchase price.