



The Chemical Company

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PRODUCT DATA

7 07 18 00 Concrete Rehabilitation

DEGADECK® CSP

Reactive methacrylate resin for sealing cracks and concrete decks

Description

DEGADECK® CSP is a very low viscosity, low surface tension, solvent free, rapid curing reactive methacrylate resin formulated to penetrate, repair and seal cracks in concrete substrates.

POWDER HARDENER is 50% dibenzoyl peroxide (BPO) in granulated powder form to initiate the cure of the DEGADECK® resin.

Yield

100 ft²/gallon (2.5 m²/L), depending on number and volume of cracks as well as porosity of concrete.

Powder Hardener:

See mixing charts for the appropriate products.

Packaging

DEGADECK® CSP is sold by weight and packaged in 38 lb (17.3 kg) pails and 396 lb (180 kg) drums. This is equivalent to 4.7 gallons (17.8 L) and 49 gallons (185.5 L) respectively.

Powder Hardener:

2.5 lb bottle
50 lb box

Color

Clear

Shelf Life

1 year when properly stored

Storage

Store in cool, clean, dry area. Keep out of direct sunlight. Storage temperature is 60°F – 80°F (15 – 27° C). Store in original and unopened container.

Features

- Fast curing (1 hour)
- UV resistance
- Weather and aging resistant
- 2 component
- Compatible with other DEGADECK® methacrylate systems
- Protects against water and chloride ion ingress
- Can be used at temperatures ranging from 14 to 104° F (-10 to 40° C)

Benefits

- On highway and bridge projects, allows fast return of traffic flow, contributing directly to worker and driver safety
- Exposure to sunlight does not affect product performance
- Provides long-lasting service life
- User friendly; ease of installation; shelf life stable
- Provides complete systems approach to concrete protection
- Prevents premature deterioration
- Extended application season

Where to Use

APPLICATION

- Bridge decks
- Parking structures
- Civil engineering applications
- Penetrating flood coat sealer to prevent moisture and ion ingress into substrate

LOCATION

- Exterior
- Horizontal

SUBSTRATE

- Concrete

How to Apply

Surface Preparation

1. Inspect the concrete substrate before preparation. Note the location of surface cracks and the presence of contaminants. Concrete surfaces must be dry and free of dust, dirt, oil, wax, curing compounds, efflorescence, laitance, and all other bondbreaking materials.
2. Inspect the underside of the deck for signs of leakage due to full depth cracks.
3. Check weather forecast to ensure dry conditions. Wet substrates must be allowed to dry prior to beginning work.
4. Using a dust-free, mobile shotblaster or gritblaster, brush-blast the substrate to expose surface cracking.
5. Do not use wet preparation methods.
6. Perform a second inspection, noting newly-found surface cracks. Mark these for pre-treatment. Clean out cracks and the deck surface with oil-free compressed air.



Technical Data

Composition

DEGADECK® CSP is a reactive methacrylate resin.

Compliances

- DEGADECK® CSP is classified under DOT regulations as Resin Solution, UN 1866, Class 3, PG II.

Test Data

PROPERTY	RESULTS	TEST METHODS
Appearance	Liquid	
Specific gravity	0.97	ASTM D 4669
Viscosity, cP (mPa-sec), at 73° F (23° C)	5-15	ASTM D 2393
Flash point, ° F (° C)	50 (10)	ASTM D 3278
Tensile strength, psi (MPa)	7,775 (54)	ASTM D 638
Compressive, psi (MPa)	12,800 (88.2)	ASTM D 638
Flexural Strength, psi (MPa)	11,900 (82)	ASTM D 638
Elongation at break, %	5	ASTM D 638

Mixing

DEGADECK® CSP must be mixed with the appropriate amount of Powder Hardener just prior to application. Air/substrate temperature determines the amount as follows:

DEGADECK CRACK SEALER (1 GALLON)

TEMPERATURE ° F (° C)	WEIGHT %	VOLUME OUNCES
41 (5)	5	11
50 (10)	4	8.5
59 (15)	3	6.5
68 (20)	2	4
86 (30)	1	2

* Please consult BASF Technical Services for applications outside this temperature range.

At temperatures below 40° F, the DEGADECK® CSP requires the addition of a cold weather additive for proper curing. Below are the instructions for use.

- Add 12 vol. oz. DEGADECK® CW Additive to 1 gallon DEGADECK® CSP. Mix approximately 1 minute.
- Add hardener powder (BPO) to above mixture per ratios below. Quantities are calculated per 1 gallon batch of a (above).

TEMPERATURE ° F	VOLUME OUNCES	CURING TIME (MIN)
40	4	35
32	6.5	40
23	11	60
14	11	90

CAUTION: DO NOT MIX HARDENER POWDER (BPO) INTO DEGADECK® CW ADDITIVE, ONLY ADD PREMIXED BATCH AS IN (a) ABOVE.

Using clean, dry plastic buckets, add Powder Hardener to DEGADECK® CSP and mix until dissolved (approximately 1 minute). Mixed DEGADECK® CSP must be applied immediately. Do not exceed 5-gallon (20 L) batch mixes.

Application

- DEGADECK® CSP is applied as a flood coat in a gravity-fed process by broom or roller.
- The contents of the mixed batch should be immediately poured onto the substrate and worked into cracks by distributing with 1/2" to 3/4" (13 – 20 mm) nap solvent grade rollers or broom. Do not allow material to pond. Application rate is 100 ft²/gal (2.5 m²/L).
- Do not allow the mixed batch to remain in the mixing vessel. It is advisable to randomly broadcast a 30 mesh (600 µm), dry aggregate into the wet, uncured resin at the rate of approximately 4 lb/100 ft² (200 g/m²).
- Working time for Degadeck® CSP is between 10 and 15 minutes once it has been applied to the substrate. Full cure to specification will be between 45 minutes and 1 hour.

Pre-Treat Wide Cracks

Cracks over 1/8" (3 mm) should be treated individually prior to deck application. Full depth cracks may require alternative treatment to prevent runoff of resin. Fill wider cracks with dry, 30 mesh silica sand. Mix a small amount of ® Crack Sealer Plus, pour into cracks and distribute with a paint brush. Squeeze bottles can also be used.

Drying Time

Allow one hour for DEGADECK® CSP to gain full mechanical properties. Check for dry-to-touch condition. End result should be a darker-colored, matte finish with a minimal surface film and some loose broadcast aggregate. Open to traffic.

Clean Up

Clean tools as needed with MMA, acetone, ethyl acetate or similar solvents.

For Best Performance

- Application temperature range of substrate is between 14 and 104° F (-10 and 40° C).
- DEGADECK® CSP is NOT a high molecular weight methacrylate (HMWM).
- DO NOT use for vertical surface treatments.
- DEGADECK® CSP is a sacrificial film that will wear out over time, however the cracks will continue to be protected.
- Periodically inspect the applied material and repair localized areas as needed. Consult a BASF representative for additional information.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Health and Safety

DEGADECK® CSP

Warning

DEGADECK® CSP contains Methyl methacrylate

Risks

FLAMMABLE LIQUID AND VAPOR. MAY CAUSE ALLERGIC SKIN REACTION. MAY CAUSE SKIN AND EYE IRRITATION. INGESTION MAY CAUSE IRRITATION.

Precautions

KEEP AWAY FROM HEAT, FLAME AND SOURCES OF IGNITION. Vapors are heavier than air. Keep container closed. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid breathing vapors. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. SEEK IMMEDIATE MEDICAL ATTENTION. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs, or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION. Refer to Material Safety Data Sheet (MSDS) for further information.

VOC Content

70 g/L or 0.59 lbs/gallon, less water and exempt solvents.

POWDER HARDENER

Danger - Organic Peroxide

Powder Hardener contains dibenzoyl peroxide; and dicyclohexyl phthalate.

Risks

May cause skin, eye and respiratory irritation. May cause dermatitis and allergic responses. Repeated or prolonged contact with skin may cause sensitization. May cause dermatitis and allergic responses. Ingestion may cause irritation.

Precautions

KEEP AWAY FROM HEAT, FLAME AND SOURCES OF IGNITION. Use only with adequate ventilation. Avoid contact with skin, eyes and clothing. Keep container closed when not in use. Wash thoroughly after handling. DO NOT take internally. Prevent inhalation of dust. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations. Empty container may contain hazardous residues. All label warnings must be observed until container is commercially cleaned or reconditioned.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Refer to Material Safety Data Sheet (MSDS) for further information.

VOC Content

0 g/L or 0 lbs/gallon, less water and exempt solvents when components are mixed and applied per manufacturer's instructions.

DEGADECK® CRACK SEALER PLUS CW

Warning

DEGADECK® Crack Sealer Plus CW contains n,n-Dimethyl-p-toluidine.

Risks

Toxic by inhalation, in contact with skin or by ingestion. May cause skin, eye and respiratory irritation. Prolonged exposure to vapors or repeated skin exposures may effect liver, nervous system and blood-forming system and may cause fatigue, loss of appetite, headache and dizziness. Can be absorbed through skin and may cause loss of oxygen-carrying capacity of blood.

Precautions

Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. DO NOT breathe vapors. Use only with adequate ventilation. Keep container closed. Use impervious gloves, eye protection and if the TLV is exceeded or if used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations. Empty container may contain hazardous residues.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. SEEK IMMEDIATE MEDICAL ATTENTION. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, administer oxygen. SEEK IMMEDIATE MEDICAL ATTENTION. If swallowed, SEEK IMMEDIATE MEDICAL ATTENTION. Refer to Material Safety Data Sheet (MSDS) for further information.

VOC Content

0 g/L or 0 lbs/gal less water and exempt solvents.

**For medical emergencies only,
Call ChemTrec (1-800-424-9300).**

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