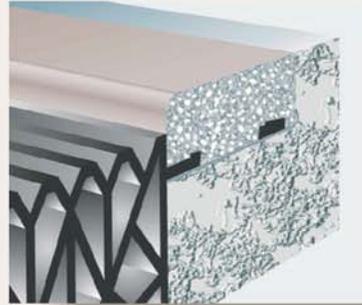


Smidcrete® C (Ambient Cured) Elastomeric Concrete



Rapid-setting ambient-cured polyurethane material compounded with a sand/aggregate mixture to form a durable nosing material for expansion joint applications

Description

The Smidcrete® C is a rapid-setting ambient-cured polyurethane material compounded with a sand/aggregate mixture to form a durable nosing material for expansion joint applications. It has excellent flexibility and load bearing characteristics, and is not prone to cracking or spalling.

Applications include parking decks, access ramp and bridge decks where vehicles generate excessive loadings.

The Smidcrete® C Elastomeric Concrete secures the expansion joint profile to the concrete deck. The

product outperforms traditional nosing materials such as concrete, epoxy and asphalts. These materials historically experienced breakdowns due to cracking, and therefore allowed moisture and corrosives to penetrate and deteriorate the concrete deck. The result enabled the moisture to go around the expansion joint system to the joint gap, and ultimately debond and break apart the nosing itself.

Features and Benefits

- Self leveling properties make it easy to install
- Product sets and cures rapidly to allow a “drive over” time of 3-4 hours
- Material is ideal for rehab work due to rapid cure time
- Smidcrete® C has high tensile, tear and bond strength while maintaining excellent flexibility
- Product can be used with a variety of expansion joint products to waterproof many end-dam applications

Physical Properties

The Smidcrete® C consists of three main components: two resin components (binder) and a sand/aggregate mixture.

The physical and performance properties of the material are shown in Table 1.

TABLE 1 - PHYSICAL AND PERFORMANCE PROPERTIES OF SMIDCRETE® C

Property	ASTM Test Method	Requirements
<i>For Binder Only:</i>		
Solid content (%)		100
Colour:		black
Mix Ratio A/B (by volume):		1:2
Mix Ratio A/B (by weight):		61:100
Viscosity:		
Part A		650 cps @21°C
Part B		1350 cps @ 21°C
Mix		900 cps @ 22°C
Pot Life:		11 minutes @ 22°C
Cure Time - Serviceability (to demold, traffic)		3-4 hours
Full Cure:		7 days @ 22°C
Tensile strength at break, psi (Mpa)	D638	1000 (6.9)
Elongation at break, %, min.	D638	150%
Hardness, durometer D	D2240	50 +/- 10
Tear strength, lbs (N/mm)	D624	175 (30.5)

TABLE 1 - cont.

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Packaging and Storage

The product is prepackaged in 5 gal. pail containing three individual components:

1. Part A (Activator)
2. Part B (Resin)
3. Part C (Aggregate/Sand Mix)

The product unit combines 1 Part (by volume) of A with 2 parts (by volume) of B and C (a pre-measured amount of sand/aggregate mixture).

Until units are used, they should be left in their original unopened containers and stored indoors.

Properly stored, the shelf life of the Smidcrete® C is one year from date of manufacture.

Installation

- a) Form or saw-cut the joint opening and blockout recess into the concrete to the dimensions as recommended by the Manufacturer. The recess must be clean and dry, and level. Unsound concrete shall be removed and the area repaired. Sandblast the recess - and metal components to come into contact with mortar - to remove laitance and contaminants.
- b) Install the expansion joint system, per the Manufacturer's recommendations. Form the gap width, if required, to restrict the flow of the Smidcrete® C mortar.
- d) Using the Smidcrete® C Bedding supplied by the Manufacturer, coat the blockout recess.
 - With SM/AR shapes Bedding is placed prior to seal installation.
 - With CS shapes Bedding is placed under flaps after seal has been placed inside expansion opening.
- e) Mix and install the Smidcrete® C in the blockout recess over the expansion joint profile. Allow the material to cure, per Manufacturer's recommendations.

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- e) Mix and install the Smidcrete® C in the blockout recess over the expansion joint profile. Allow the material to cure, per Manufacturer's recommendations.
- Mix each resin component separately using a Jiffy Mixer paddle and electric drill. No streaks should be visible. Mix the resins together with a heavy-duty mixer for approximately 60 seconds or until the colour is uniform. Add the contents

Limitations

- Stem opening and block out recesses must be constructed as detailed herein.
- Mix and use only complete units.
- Part B must be mixed thoroughly prior to mixing with Part A.
- Insufficiently mixed material will not cure properly.
- Application temperature below 15°C will slow cure time.
- Smidcrete® C must be placed on sound concrete only.
- Smidcrete® C must be placed on clean and dry concrete to ensure proper bond.

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