



STRUCTUROC SPRAYABLE BC

High strength repair mortar
for vertical and overhead concrete repairs

STRUCTUROC SPRAYABLE BC is a one component, high strength, polymer modified, fiber reinforced, shrinkage compensated repair mortar. It is designed for vertical and overhead concrete repairs. It can be hand troweled or sprayed with low-pressure spraying equipments. Typical thicknesses per application can vary from 8 mm (3/8") to 50 mm (2") in a single application. A greater thickness requires multiple applications. STRUCTUROC SPRAYABLE BC can be applied using equipment for mortar spraying or manually using a trowel.

■ USES

All vertical or overhead surfaces for the following types of work:

TYPICAL USES:

- Bridges
- Tunnels
- Multi-Level parking structures
- Parapets
- Clarifiers
- Viaducs
- Reservoirs
- Dams
- Columns and piles

■ SURFACE PREPARATION

The surface must be sound and free of all dirt and contaminants that could inhibit bond. Surface must be mechanically prepared by sandblasting or shotblasting to obtain a sound concrete surface. The concrete surface that will receive the product must be sufficiently saturated with water before the application can be gin. Do not apply on a wet surface.

Follow the "I.C.R.I." recommendations for repairs to structures having exposed rebars.

■ PRODUCT FEATURES

- Fiber reinforced
- Freeze/thaw resistant
- High early and ultimate compressive strength
- High flexural and bond strength
- Shrinkage compensated
- Crack resistant
- Can be spray applied

■ PRIMING

No primer required.

PHYSICAL MATERIAL PROPERTIES @ 22°C (72°F) 50 % RH

COMPRESSIVE STRENGTH ASTM C109			SLANT SHEAR STRENGTH ASTM C882		
1 day	12.0 MPa	(1,750 psi)	1 day	0.7 MPa	(101 psi)
3 days	25.1 MPa	(3,640 psi)	7 days	10.2 MPa	(1,500 psi)
7 days	34.0 MPa	(4,925 psi)	28 days	15.8 MPa	(2,290 psi)
28 days	38.0 MPa	(5,500 psi)			
FLEXURAL STRENGTH ASTM C348			SHRINKAGE/HARDENED STATE @ 28 DAYS ASTM C157		
1 day	2.6 MPa	(375 psi)	Dry	-0.10 %	
7 days	3.4 MPa	(375 psi)	Humid	+0.09 %	
28 days	4.6 MPa	(665 psi)			
TENSILE STRENGTH ASTM C496			FREEZE THAW ASTM C666 PROCEDURE A		
1 day	1.1 MPa	(165 psi)	500 cycles	96 %	R.D.F
7 days	1.8 MPa	(260 psi)			
28 days	2.7 MPa	(385 psi)			
CHLORIDE PERMEABILITY ASTM C1202			CURE TIME		
After 28 days	750 coulombs		Working time	20/40 minutes	
			Initial set	25 minutes	
			Final set	70 minutes	



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■ PRODUCT MIXING

- Always mix by adding the dry product to the mixing water.
- For every 2.5 to 3.3 L of water add a 22.7 kg (50 lbs) bag of STRUCTUROC SPRAYABLE BC
- Add product to water in a continuous manner to obtain a homogeneous

■ PRODUCT APPLICATION

Application can be done manually or sprayed using a “putzmeister” low pressure screw type pump.

VERTICAL SURFACES:

Apply a maximum thickness of 50 mm (2») layer. For all subsequent layers, wait 24 hours between applications and insure that proper water curing is performed.

OVERHEAD SURFACES:

Apply at a maximum of 35 mm (1¼») per layer. If the planned thickness is more than 40 mm (1½»), apply in 25 mm (1») layers and insure proper water curing between layers.

FINISHING

The finishing and curing are the 2 most important steps to insure durability. The surface must be finished with a wood or magnesium trowel.

■ CURING

The curing must begin as soon as the final set is attained. The final set will vary depending on site conditions. Follow ACI 309 recommendations for curing. If a curing compound is used, 2 coats of a curing compound containing a minimum of 25 % solids.

■ ESTIMATING / YIELD

A 22.7 kg (50 lbs) bag of STRUCTUROC SPRAYABLE BC will yield approximately 12 L (0.42 ft³) and cover 0.6 m² (6 ½ ft²) at a 20 mm (¾”) thickness.

COVERAGE PER 22.7KG (50LB) BAG:

<i>Nominal Thickness</i>	<i>Approximate Coverage</i>
3 mm (1/8”)	4.2 m ² (45 ft ²)
6 mm (1/4”)	2.1 m ² (22 ft ²)
12 mm (1/2”)	1.0 m ² (11 ft ²)

■ PRECAUTIONS / RESTRICTIONS

- Apply to pre saturated surface only
- Do not apply on fresh concrete
- Do not apply at temperature under 5°C
- Do not add admixture to this product

■ PACKAGING

STRUCTUROC SPRAYABLE BC:

Bags 22.7 kg (50 lbs)

Qty: 56 bags per pallet

■ RECOMMENDED TOOLS

The following tools will assure a cost effective, satisfactory installation:

- Mortar or “Jiffy” type mixer
- Low pressure screw type pump such as a Putzmeister
- Wood or magnesium trowel

■ CLEANING

Use warm soapy water to clean all tools and equipment.

■ STORAGE

STRUCTUROC SPRAYABLE BC must be stored in a dry area on skids.

■ SAFETY

See Material Safety Data Sheet.

BMQ SOLUTIONS WARRANTS that the product conforms to its chemical description and is reasonably fit for the purpose stated on its Technical Data Sheet when used in accordance with its directions. BMQ Solutions makes NO OTHER WARRANTY either expressed or implied.
Buyer assumes all risk in handling.

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