



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		
1 day	12.0 MPa	(1,750 psi)
3 days	25.1 MPa	(3,640 psi)
7 days	34.0 MPa	(4,925 psi)
28 days	38.0 MPa	(5,500 psi)
FLEXURAL STRENGTH ASTM C348		
1 day	2.6 MPa	(375 psi)
7 days	3.4 MPa	(375 psi)
28 days	4.6 MPa	(665 psi)
TENSILE STRENGTH ASTM C496		
1 day	1.1 MPa	(165 psi)
7 days	1.8 MPa	(260 psi)
28 days	2.7 MPa	(385 psi)
CHLORIDE PERMEABILITY ASTM C1202		
After 28 days	750 coulombs	

SLANT SHEAR STRENGTH ASTM C882		
1 day	0.7 MPa	(101 psi)
7 days	10.2 MPa	(1,500 psi)
28 days	15.8 MPa	(2,290 psi)
SHRINKAGE/HARDENED STATE @ 28 DAYS ASTM C157		
Dry	-0.10 %	
Humid	+0.09 %	
FREEZE THAW ASTM C666 PROCEDURE A		
500 cycles	96 %	R.D.F
CURE TIME		
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 (1½») 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 m² (45 ft²)
6 mm (1/4")	2.1 m² (22 ft²)
12 mm (1/2")	1.0 m² (11 ft²)

■ 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.