



STRUCTUROC TOPPING

Smooth concrete resurfacer
for horizontal and vertical repair

STRUCTUROC TOPPING is a blend of cementitious binders, aggregates and high performance polymers that when mixed with water to a slurry consistency, produces a smooth and durable concrete resurfacer. An effective and economical answer to expensive concrete replacement, correcting both horizontal and vertical between 3mm and 12mm (1/8" to 1/2") concrete surfaces that are worn, spalled and distressed.

■ USES

Anywhere a new concrete finish is needed to resist freeze thaw cycles, deicing salts and a fully bonded new concrete surface.

TYPICAL USES:

- Walkways
- Patios
- Concrete stairs
- Driveways
- Garage floors
- Pool decks

■ PRODUCT FEATURES

- Durable and freeze thaw resistant
- Resistant to deicing salts
- Excellent bond to old concrete (even when featheredged)
- Self curing, no additional water curing needed
- High compressive and flexural strength
- Excellent coverage and easy to use
- No primer needed
- Fast drying
- Can be broom or sponge finished
- Accept foot traffic in 4 hours and rubber tire traffic within 12 hours

■ PACKAGING

STRUCTUROC TOPPING:

22.7 kg (50 lbs) bags

Qty: 56 units per pallet

■ SURFACE PREPARATION

Surface must be solid, completely clean, free of oil, wax, grease, sealers, curing compounds, asphalt, paint, dirt, loose surface material and any contaminant that will act as a bond breaker. Weak concrete surfaces must be cleaned down to solid sound concrete by mechanical means such as scarifying or high pressure washing. Acid etching or chemical cleaning is not an acceptable method of preparation to which a BMQ SOLUTIONS product will be applied. Remove any material that interferes with bond including dust and dirt by brooming and vacuuming, including expansion joints.

CRACK REPAIR

STRUCTUROC TOPPING is a thin mortar application over cracked concrete. Moving structural joints must be reflected through the STRUCTUROC TOPPING application. Repaired areas must be set firmly prior to applying STRUCTUROC TOPPING. Any nonmoving cracks should be cleaned out to a solid core and be filled with an acrylic caulk. Crack repairs should be allowed to cure and set completely. It is possible that existing cracks, particularly those that move even when repaired, may mirror through the thin layer of STRUCTUROC TOPPING. Expansion joints likewise should be marked to prevent being filled by STRUCTUROC TOPPING.

■ PRIMING

No primer required.

■ SEALING

STRUCTUROC TOPPING should be sealed using a water based, breathable concrete sealer.

MATERIAL PHYSICAL PROPERTIES @ 21°C (70°F)

COMPRESSIVE STRENGTH ASTM C109-93 2» (50MM) CUBES		
3 hours	7.0 MPa	(1,000 psi)
1 day	16.0 MPa	(2,200 psi)
7 days	25.0 MPa	(3,600 psi)
28 days	35.0 MPa	(5,100 psi)
FLEXURAL STRENGTH ASTM C348		
28 days	6.8 MPa	(1,000 psi)
CRACKING		
28 days	None	
BOND STRENGTH ASTM C882		
28 days	1.4 MPa	(200 psi)

HARDENING		
Working time	20 minutes	
Initial set time (Gillmore)	40 minutes	
Final set time (Gillmore)	50 minutes	
LENGTH CHANGE ASTM C157 WITH C928 MODIFICATION		
Time	Air cure	Water cure (immersion)
1 day	+ 0.004 %	+ 0.007 %
7 days	- 0.000 %	+ 0.010 %
28 days	- 0.014 %	+ 0.031 %



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■ PRODUCT MIXING

- For each 22.7 kg (50 lbs) bag of STRUCTUROC TOPPING add 4.75 L (1.3 US gal) of clean potable water into a mixing drum.
- Then add the STRUCTUROC TOPPING powder, while mixing at full speed (max 650 rpm) with a paddle mixer attached to a heavy duty 1/2" drill.
- Always add the product to the mixing water.
- Mix completely for a minimum of 2 to 3 minutes until lump free, adding no additional water.

■ PRODUCT APPLICATION

Pour the mixed STRUCTUROC TOPPING onto the substrate. Then spread with a squeegee, or flat trowel using enough pressure to ensure good contact with the entire surface, then broom or sponge finish. Applications can be made using a steel trowel, squeegee, masonry brush for curbs or steps and broom or sponge finished. Work in application areas small enough for easy access for broom finishing without having to walk on the fresh STRUCTUROC TOPPING. If a broom finish is applied, it must be performed while the product is still fresh (approximately 10 to 15 minutes). Pour subsequent applications while the previous one is still wet. If needed, edges can be smoothed out using the BMQ SOLUTIONS smoothing tool.

On vertical applications such as stairs, trowel STRUCTUROC TOPPING directly onto the properly prepared distressed area and finish as desired. STRUCTUROC TOPPING can be applied at a thickness of up to 12 mm (1/2").

■ CURING

During application, ambient and substrate temperature should be a minimum of 10°C (50°F). STRUCTUROC TOPPING is self curing. No wet curing methods should be used. Cooler temperatures, higher humidity and inadequate ventilation can extend drying times. However do not allow the product to freeze or be exposed to rain if such should occur within 24 hours of placement. STRUCTUROC TOPPING is a cement based product therefore temperature, wind and substrate conditions will affect performance. Also protect material from direct sunlight. These variables can cause uneven curing patterns, a false set and cracking.

■ ESTIMATING / YIELD

A 22.7 kg (50 lbs) STRUCTUROC TOPPING bag mixed with 4.75 L (1.3 US gal) of clean potable water, yields 12 L (0.42 ft³) of product that will cover approximately 4.0 m² (42.0 ft²), when applied on concrete at a 3 mm (1/8") thickness.

COVERAGE PER 22.7KG (50LB) BAG:

Nominal Thickness	Approximate Coverage
3 mm (1/8")	4.0 m ² (42 ft ²)
6 mm (1/4")	2.0 m ² (21 ft ²)

■ PRECAUTIONS / RESTRICTIONS

- Not intended to match the color of the concrete being repaired
- Not acceptable for use in heavy industrial applications such as steel wheeled traffic, loading docks or heavy manufacturing areas
- Do not install below 5°C (40°F)
- Do not over water or mix with additives
- Do not use in permanently submerged areas, such as within swimming pools

■ PRODUCT NOTES

COLOR MATCH

STRUCTUROC TOPPING dries to a light gray color, however cements may vary in color, thus affecting the final color of concrete. Concrete age and job site conditions may play a role and therefore, STRUCTUROC TOPPING may not match the surrounding distressed concrete color. Should this occur consult SOLHYDROC for a procedure to diminish discoloration. A test application is recommended to determine color suitability.

■ RECOMMENDED TOOLS

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

- Steel Trowels
- 1/2" Heavy duty drill with a paddle mixer
- Masonry broom
- Masonry brush
- Squeegee
- Clean Sponge

■ CLEANING

Use water to clean all tools immediately after use.

■ STORAGE

Store in a cool and dry area and keep from direct sun exposure. This product loses its efficiency after 6 months of storage.

■ SAFETY

See Material Safety Data Sheet.

Contains Portland cement and silica sand. May irritate eyes and skin. Avoid contact with eyes or prolonged contact with skin. In case of contact, flush thoroughly with water. Avoid breathing dust. Wear a respirator in dusty areas.

■ ELIGIBLE LEED® CREDITS : 3

Regional Materials (MR 5.1 & 5.2): 2 Points

Low Emitting Materials (EQ 4,1): 1 Point

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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