

POURABLE RAPID SETTING CEMENT-BASED REPAIRING MORTAR

DESCRIPTION

PENETRON® QUICK PATCH is a quick-setting, cementitious compound used for areas where fast repairs are necessary and the concrete must be put back in service promptly. PENETRON® QUICK PATCH is excellent for cold weather repairs. It can be used for repairs from full thickness down to 13 mm (½”) thickness.

RECOMMENDED FOR

- ▶ Concrete roads and highways
- ▶ Bridge decks
- ▶ Airport runways and taxiways
- ▶ Distribution and storage facilities
- ▶ Manufacturing facilities
- ▶ Cold storage and food processing plants

ADVANTAGES

- ▶ One component product mixed with clean water. No need for primers or liquid activators
- ▶ A hydraulic based, non-corrosive cementitious product that is fully compatible with concrete
- ▶ Fast setting and rapid strength development allows fast turnaround of repaired areas. High early strength - over 13,8 MPa (2000 psi) in 1 hour
- ▶ Can be extended with pea gravel for large or thick repairs. This allows for a higher yield
- ▶ Freeze-thaw durable and resistant to scaling by de-icing chemicals allowing for excellent long-term performance in cold environments
- ▶ Contains both polymers and fibers increasing bond, tensile and flexural strength
- ▶ Meets ASTM C928 (Specification for Very Rapid Hardening Cementitious Repair Materials)
- ▶ Zero VOC: Penetron powdered products contain zero volatile organic content and are safe for use both outdoors and in confined indoor spaces

TECHNICAL CHARACTERISTICS

Characteristic	Test Result		Test Method
<i>Compressive Strength</i>	1 hour	14 MPa (2100 psi)	ASTM C 109
	3 hours	31 MPa (4500 psi)	
	24 hours	41 MPa (6000 psi)	
	7 days	48 MPa (7000 psi)	
	28 days	55 MPa (8000 psi)	
<i>Setting Time (Gillmore Test)</i>	Initial set	20 minutes	ASTM C 266
	Final set:	25 minutes	
<i>Scaling resistance to de-icing chemicals</i>	25 cycles 3,47 kg/m ² (0,71 lb/ft ²)		ASTM C 672
<i>Freeze/Thaw Resistance</i>	99,2% D.F.		ASTM C 666
<i>Relative Dynamic Modulus</i>	300 cycles		Procedure B

Cooler temperatures, inadequate ventilation and higher humidity can extend drying times. All data derived from tests under laboratory conditions; field conditions may yield slightly different results.

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DIRECTIONS FOR USE

Surface Preparation: Remove all loose, unsound or contaminated concrete from patch area. Square off and vertical cut or undercut the patch area edges. Remove concrete to a depth, as determined by the load type, as follows:

For light load (cars) patch thickness limitations are between 12 mm (½") to 50 mm (2"). Un-extended.

For heavy load (trucks) patch thickness must be above 50 mm (2"). Extended.

Moisten patch area thoroughly and keep continuously damp for at least one hour, then immediately before patch placement, remove all standing water by air blast or other method. Allow surface water to evaporate (sheen should disappear, but surface must remain somewhat darkened by moisture).

NOTE: Applications over 50 mm (2") thickness must be extended by quartz aggregate (QUARTZ SAND MIX 3,0-6,0 MM or 1,5-8,0 MM or similar) addition (see *Mixing*).

Mixing: Pre-wet mixer for the first batch and allow to drain. Carefully measure the required potable mixing water and pour it into the mixer. Start the mixer and then add PENETRON® QUICK PATCH slowly. Mix for one to two minutes until a uniform lump-free consistency is obtained. Never add additional water after initial mixing. Applications over 50 mm (2") in thickness must be extended by the addition of 50% by weight of clean, uniformly graded 10 mm (3/8") maximum size quartz aggregate. The quartz aggregate should be pre-wet and allowed to drain and dry slightly. Add 11,3 kg (25 lb) of quartz aggregate, for each 22,7 kg (50 lb) of PENETRON® QUICK PATCH used to the mixer only after a uniform lump-free consistency is obtained (see above), then continue mixing until the quartz aggregate blends in evenly. Do not add additional water, when using quartz aggregate.

Mixing ratios:

Quick Patch: 22,7 kg (50 lb)

Mix Water: 3,1 L (3,25 qt)

Mixed Yield: 0,012 m³ (0,41 ft³)

Application: After mixing, PENETRON® QUICK PATCH should be placed without delay and quickly consolidated by tamping. The surface can be finished or it can be struck off with a screed to a level slightly above the surrounding concrete and later be shaved down with the sharp edge of a trowel, as it starts to set. Mix only an amount of material that can be placed within a 10-minute working time. Large jobs require adequate personnel to permit mixing, placing and finishing operations to occur simultaneously, without interruption, in order to avoid cold joints. Mixer and tools must be promptly cleaned to prevent build-up. Consideration should be given to providing stress relief for large patch areas.

Curing: Immediately after finishing, apply a good quality membrane type curing compound. Alternatively, moist cure for as long as possible, up to three days. Protect patched area from vibration or loading, until desired strength is achieved.

SPECIAL CONSIDERATIONS

DO NOT add any admixtures, sand or cement.

DO NOT place in lifts.

DO NOT use for patching asphalt, later modified concrete or for vertical surfaces.

Pea gravel can be used, instead of quartz aggregates, following the instructions as mentioned.

Consult PENETRON ROMANIA for additional information, regarding your project.

PACKAGING

PENETRON® QUICK PATCH is available in 22,7 kg (50 lb) multi-wall bag with moisture-resistant liner.

STORAGE / SHELF LIFE

PENETRON products must be stored dry at a minimum temperature of 7°C (45°F). Shelf life is one year when stored under proper conditions.

SAFE HANDLING INFORMATION

Skin may be sensitive to cement. Use appropriate safety equipment (gloves, dust masks, eye protection), when working with this product. Avoid contact with eyes or prolonged contact with skin. If eye contact occurs, wash immediately and repeatedly with fresh water and then get medical attention without delay. If skin contact occurs, wash with soap and water. For further information please refer to Safety Data Sheet.. Each Safety Data Sheet contains health and safety information for the protection of your employees and your customers. KEEP OUT OF THE REACH OF CHILDREN.

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CERTIFICATION



1085

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Allentown, PA 18103

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1085-CPR-0040

DOP NO: 10.20006D260819-01

EN 1504-3

QUICK PATCH

Products and systems for structural and non-structural
protection and repair of concrete structures

Compressive strength: Class R4 (≥ 45 MPa)Chloride content: < 0.20 % by mass

Adhesive bond: NPD

Restrained shrinkage, expanding: NPD

Elastic modulus: NPD

Thermal compatibility (Part 1): NPD

Corrosion behaviour: deemed to have no corrosive effect

Dangerous substances: NPD

Reaction to fire: NPD

WARRANTY - DISCLAIMER

BEST IMPORT PRODUCTS PENETRON warrants that the products manufactured by it shall be free from material defects and will conform to formulation standards and contain all components in their proper proportion. Should any of the products be proven defective, the liability to BEST IMPORT PRODUCTS PENETRON shall be limited to replacement of the material proven to be defective, and BEST IMPORT PRODUCTS PENETRON shall in no case be liable otherwise or for incidental or consequential damage.

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