



Reinstatement mortar for concrete pavements and floors

Uses

For the reinstatement of large areas of concrete pavements and floors to avoid the total replacement of bays. The product is alkaline in nature and will protect embedded steel reinforcement. It may be used internally and externally.

For emergency patching of small areas of concrete pavements and floors, the use of Patchroc GP is recommended.

Advantages

- Rapid strength gain — will generally accept pedestrian traffic at 12 hours, significantly reducing down-time
- High strength, abrasion and weather resistance
- Single component product eliminates site batching and requires only the site addition of clean water
- Excellent bond to the concrete substrate
- Shrinkage compensated
- Contains no chloride admixtures

Description

Paveroc is supplied as a ready to use blend of dry powders which only requires the addition of clean water to produce a highly consistent, high strength repair mortar. Paveroc exhibits excellent thermal compatibility with concrete and low water permeability.

Design criteria

Paveroc is designed for horizontal use. It may be applied up to a maximum thickness of 100 mm. Thicker sections can be built up in layers. Material should not be applied at less than 12 mm thickness. Individual bay sizes should not exceed 18 m². Consult the local Fosroc office for further information.

Properties

The following results were obtained at a water : powder ratio of 0.08 and temperature of 20°C unless otherwise stated.

Test method	Typical result		
Compressive strength: (BS 1881 Pt 116: 1983)	@ 1 day	@ 7 days	@ 28 days
	20 N/mm ²	35 N/mm ²	50 N/mm ²
Working life:	@ 10°C	@ 22°C	@ 30°C
	60 mins	55 mins	30 mins
Setting time:	@ 10°C	@ 20°C	@ 30°C
	110 mins	65 mins	48 mins
Traffic time —	@ 10°C	@ 20°C	@ 30°C
Pedestrian:	18 hours	12 hours	8 hours
Vehicular:	36 hours	24 hours	16 hours
Coefficient of thermal expansion:	7 to 12 x 10 ⁻⁶ /°C		
Fresh wet density:	Approximately 2300 kg/m ³ dependent on actual consistency used		

Application instructions

Notes

To avoid possible reflective cracking in the Paveroc repair, it is essential that live cracks and existing joint details in the substrate be given proper attention. Live cracks should be treated by an approved method. For further information, contact the local Fosroc office.

Preparation

Saw cut or cut back the extremities of the repair locations to a depth of at least 10 mm. Break out the complete repair area to a minimum depth of 12 mm up to the sawn edge.

The surface should be clean and free from contamination. Where breaking out is not required, roughen the surface and remove any laitance by light scabbling or grit-blasting.

Oil and grease deposits should be removed by steam cleaning or detergent scrubbing and the effectiveness of decontamination assessed by a pull-off test.

Expose fully any corroded steel in the repair area and remove all loose scale and corrosion deposits. Steel should be cleaned to a bright condition paying particular attention to the back of exposed steel bars. Grit-blasting is recommended.

Where corrosion has occurred due to the presence of chlorides, the steel should be high pressure washed with clean water immediately after grit-blasting.

The prepared area should be blown clean with oil-free compressed air.

Priming

Reinforcing steel

Apply one full coat of Nitoprime Zincrich to all exposed reinforcing steel and allow to dry before continuing. If any doubt exists about having achieved an unbroken coating, a second application should be made and, again, allowed to dry before continuing.

Substrate

Prime using Nitobond EP. Thoroughly stir the individual components to disperse any settlement. Add the entire contents of the hardener to the base container and mix thoroughly for at least 3 minutes until a uniform colour is obtained, taking particular care to scrape the sides and bottom of the container. It is recommended that a Jiffy mixer on a heavy duty, slow speed electric drill is used.

At temperatures below 20°C the separate components should be warmed in hot water to a maximum of 25°C before mixing. This will, however, reduce the pot life of the standard grade to 20 minutes.

Alternatively the materials should be stored in a heated building and only removed immediately before use.

The mixed product should be applied with a suitable stiff nylon-type brush and firmly scrubbed into the surface, ensuring an even coating. The Paveroc should be applied to Nitobond EP standard within 1½ hours at 20°C, or within 1 hour at 30°C and Nitobond EP slow set within 24 hours at 20°C, or within 8 hours at 30°C.

Mixing

Care should be taken to ensure that Paveroc is thoroughly mixed. A forced action mixer is essential. Mix in a suitably sized drum using an approved spiral paddle in a slow speed (400/500 rpm) heavy duty drill. Free-fall mixers must not be used. Mixing of part bags should never be attempted.

Place 1.9 to 2.2 litres of drinking quality water into the mixer and, with the machine in operation, add one full bag of Paveroc and mix for 3 minutes until fully homogeneous. Note that powder must always be added to water.

Application

While the Nitobond EP is still tacky, apply Paveroc evenly by trowel and tamp in place with a wood float to ensure full compaction. Thoroughly compact the mortar around any exposed steel reinforcement. Paveroc can be applied up to 100 mm thickness in single applications.

Note: The minimum applied thickness of Paveroc is 12 mm.

Finishing

Paveroc should be struck off to the correct level and finished with a steel trowel to fully close the surface. A textured surface can be achieved using a suitable roller or brush. The completed surface should not be overworked.

High and low temperature working

At ambient temperatures above 30°C, the material should be stored in the shade and cool water used for mixing.

In cold conditions down to 5°C, the use of warm water (up to 30°C) is advisable to accelerate strength development.

Curing

Paveroc must be cured immediately after finishing using Concure WB Clear, sprayed on to the surface of the finished mortar in a continuous film. Large areas should be cured as trowelling progresses at 0.5 m² at a time. Avoid overspray at edges on to the surrounding substrate. In fast drying conditions, supplementary curing with polythene sheeting taped down at the edges must be used. In cold conditions, the finished repair must be protected from freezing.

Overcoating with protective finishes

Paveroc is extremely durable and will provide an excellent hard wearing surface to the repaired locations. Surrounding floor areas may benefit from the application of an abrasion or chemical-resistant protective coating. For internal locations, Fosroc recommend the use of the Nitoflor FC range of protective coatings. These products provide a decorative and uniform appearance as well as protecting areas of the floor which might otherwise be at risk. Nitoflor FC products may be applied over the repair area after prior removal of the curing membrane generally after 3 days. The local Fosroc office should be contacted for advice about external protective overlayers.



Cleaning

Paveroc should be removed from equipment with clean water immediately after use. Cured material can only be removed mechanically.

Limitations

Paveroc and Nitobond EP should not be used when the temperature is below 5°C and falling. Do not mix part bags. Do not expose to moving water during application. Exposure to heavy rainfall prior to the final set may result in surface scour. If in doubt consult the local Fosroc office.

Estimating

Paveroc is supplied in 25 kg bags each yielding approximately 11.5 litres (0.9 m² at 12 mm thickness). Note: coverage figures are theoretical and will depend on the consistency used. Coverage figures may be reduced depending on wastage factors and the nature of the substrate.

Storage

Storage conditions

Store in dry conditions in the original, unopened bag.

Shelf life

12 months if stored as above. If stored at high temperatures and/or high humidity the shelf life may be reduced to 4 to 6 months.

Precautions

Health and safety

Paveroc contains cement powders which, when mixed or become damp, release alkalis which can be harmful to the skin. During use, avoid inhalation of dust and contact with skin and eyes. Wear suitable protective clothing, gloves, eye protection and respiratory protective equipment. The use of barrier creams provide additional skin protection. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately — **do not** induce vomiting.

Fire

Paveroc is non-flammable.



Fosroc Limited

Coleshill Road
Tamworth
Staffordshire
B78 3TL
Tel 01827 262222
Fax 01827 262444
www.fosrocuk.com

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