Fosroc®
Paveroc®

constructive solutions

Floor / pavement large area, repair mortar (15 - 50mm depth)

Uses

For the reinstatement of large areas of concrete pavements and floors to avoid the total replacement of bays.

The rapid strength gain of Paveroc will ensure that down-time is significantly reduced. 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 16 hours
- 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
- RCS (Respirable Crystalline Silica) Hazard Free*

Description

Paveroc is supplied as a ready to use blend of dry powders which requires only the site addition of clean water to produce a highly consistent, high strength repair mortar for large areas of concrete pavements and floors. The material is based on a blend of cements, graded aggregates, special fillers and chemical additives to provide a mortar with good handling characteristics, while minimising water demand. Paveroc exhibits excellent thermal compatibility with concrete and good water repellent properties. The low water requirement ensures fast strength gain and long- term durability.

*Paveroc is classified not hazardous for RCS in accordance with Australian Inventory of Industrial Chemicals; contains <0.1% RCS.

Design Criteria

Paveroc is designed for horizontal use. It may be applied up to a maximum thickness of 50mm. Thicker sections can be built up in layers. The material should not be applied at less than 15mm thickness.

Individual bay sizes should not exceed 18 m^2 @ 50mm thickness and 5m^2 @ 15mm thickness.

Properties

The following results were obtained using 1.5 litres of water per 20 kg bag of Paveroc.

Property	Typical result
Compressive strength at 23°C	20 MPa @ 1 day 40 MPa @ 7 days 55 MPa @ 28 days
Working life:	2 hours @ 23°C
Setting time at 23°C:	Initial set - 5 hours Final set - 7 hours
Traffic time:	
Pedestrian	30 hours @ 15°C 16 hours @ 23°C 12 hours @ 30°C
Vehicular	54 hours @ 15°C 24 hours @ 23°C 20 hours @ 30°C
Fresh wet density:	Approximately 2300 kg / m^3 dependent on consistency
Service temperature:	0°C to 80°C (using Nitobond AR / Nitoprime 330 primer) 0°C to 55°C (using Nitobond EP primer)

Application Instructions

Notes

To avoid possible reflective cracking in the Paveroc repair, it is essential that live cracks and joints in the substrate be given proper attention. Due consideration must always be given to existing joint details and these must be followed through the Paveroc repair; live cracks should be treated by an approved method. For further information, contact Fosroc.

Preparation

Saw cut or cut back the extremities of the repair locations to a depth of at least 10mm to avoid feather-edging and to provide a square edge. Break out the complete repair area to a minimum depth of 15mm up to the sawn edge.

Clean the surface and remove any dust, unsound or contaminated material, plaster, oil, paint, grease, corrosion deposits or algae. Where breaking out is not required, roughen the surface and remove any laitance by light scabbling, grit-blasting, scabbling or by needle-gun to form a good key.

Oil and grease deposits should be removed by steam cleaning, detergent scrubbing or the use of a proprietary degreaser. The effectiveness of decontamination should then be 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 for this process.

Where corrosion has occurred due to the presence of chlorides, the steel should be high pressure washed with clean water immediately after grit-blasting to remove corrosion products from pits and imperfections within its surface.

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

Reinforcing steel priming

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 priming

The substrate should be thoroughly soaked with clean water and any excess removed immediately prior to priming. Any areas of the substrate which dry out before application of the primer must be redampened before continuing.

Thoroughly scrub Nitobond AR or diluted Nitoprime 330 (4:1 with water) into the dampened surface taking care to ensure complete coverage particularly around the edges.

Apply the topping whilst the Nitobond AR or Nitoprime 330 is still tacky. The priming operation must be repeated if the initial coat has dried out.

In exceptional circumstances, e.g. where a substrate/repair barrier is required or where the repair/substrate is likely to become immersed, permanently wet or damp subsequent to the completion and cure of the repair, Nitobond EP bonding aid should be used. Refer to the Nitobond EP data sheet.

Mixing

Care should be taken to ensure that Paveroc is thoroughly mixed. A forced-action mixer is essential. Mixing at a slow speed (400/500 rpm) in a suitably sized drum using appropriate equipment such as a heavy-duty 1600W mixer with spiral mixer, is acceptable for one-bag mixes. Free-fall mixers must not be used.

Place drinking quality water into the mixer and, with the machine in operation, **add one full 20 kg bag** of Paveroc and mix for 3 minutes until fully homogeneous. Note that powder must always be added to water.

Consistency:	Water Addition (Litres)	Yield (Litres)
Stiff	1.5 - 1.6	9.4
Plastic	1.6 - 1.8	9.5

Mixing part bags

It is recommended that full bags be mixed, however for applications where smaller quantities of product are required, experienced applicators may elect to mix half bags by weighing out (the correct quantity of product) and mixing with half the recommended quantity of water. In doing so the contractor accepts the risk of any off-ratio mixing. Agitate the dry product before weighing out to minimise any segregation. Reliable scales should be used to weigh out individual components.

Application

The mixed Paveroc must be applied on to the primed surface before it dries. Areas which dry too soon must be scrubbed clean and reprimed exactly as described above before continuing.

Apply the mixed Paveroc on to the primed substrate as soon as possible after mixing. The mortar should be applied evenly by trowel and tamped 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 50mm thickness in single applications.

Note the minimum applied thickness of Paveroc is 15mm.

Build-up

Sections greater than 50mm thickness can be achieved by application of multiple layers. In this instance, the surface of the intermediate layers should be scratch-keyed, covered with polythene sheeting secured at the edges, and allowed to set for a minimum of 7 hours (at 23°C) before continuing. Repriming as described above and a further application of Paveroc may proceed at this time.

Finishing

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

Low temperature working

In cold conditions down to 10°C, the use of warm water (up to 30°C) is advisable to accelerate strength development. Normal precautions for winter working with cementitious materials should then be adopted. The material should not be applied when the substrate and/or air temperature is 10°C and falling. At 10°C static temperature or at 10°C and rising, the application may proceed.

High temperature working

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

Fosroc® Paveroc®

Curing

Paveroc is a cement-based repair mortar. In common with all cementitious materials, Paveroc must be cured immediately after finishing in accordance with good concrete practice. Using a suitable Concure curing compounds, sprayed on to the surface of the finished mortar in a continuous film, is recommended. Large areas should be cured as trowelling progresses without waiting for completion of the entire area. 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 recommends the use of one of its 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. A protective coating may be applied over the repair area after prior removal of the curing membrane generally after 7 days.

Cleaning

Paveroc and Nitobond AR or Nitoprime 330 should be removed from tools, equipment and mixers with clean water immediately after use. Cured material can only be removed mechanically.

Equipment used with Nitoprime Zincrich and Nitobond EP should be cleaned with Fosroc Solvent 10.

Limitations

Paveroc should not be used when the temperature is below 10°C and falling. Do not mix part bags. The product should not be exposed to moving water during application. Exposure to heavy rainfall prior to the final set may result in surface scour. If any doubts arise concerning temperature or substrate conditions, contact Fosroc.

Supply

Paveroc 20 kg:	FC302080-20KG
Nitoprime Zincrich 1 litre:	FC322100-1L
Nitobond AR 1 litre:	FC520016-1L
Nitobond AR 5 litre:	FC520016-5L
Nitobond AR 20 litre:	FC520016-20L
Nitoprime 330 1 litre:	FC605120-1L
Nitoprime 330 5 litre:	FC605120-5L
Nitoprime 330 20 litre:	FC605120-20L
Fosroc Solvent 10 4 litre:	FC600800-4L

Coverage and yield

Paveroc:	Approximately 9.4 litres / 20 kg bag (0.63 m^2 at 15 mm thickness)
Nitoprime Zincrich:	7 m^2 / litre (approx.)
Nitobond AR:	6 - 8 m^2 / litre
Nitoprime 330 (diluted):	6 - 8 m^2 / litre

Note: the actual yield per bag of Paveroc will depend on the consistency used. The actual coverage rate of Nitobond AR and Nitoprime 330 will vary dependent on the texture and porosity of the substrate. The coverage figures for other products are theoretical - due to wastage factors and the variety and nature of possible substrates, practical coverage figures will be reduced.

Storage

Paveroc has a shelf life of 36 months from date of manufacture if kept in the original, unopened bags. Refer to the manufacture date indicated on the packaging. Do not use if there are lumps in the product, or a loss of workability (requiring more water to be added) is experienced.

If stored at high temperatures and/or high humidity conditions the shelf life may be reduced. Nitobond AR and Nitoprime 330 should be protected from frost.

Important notice

A Safety Data Sheet (SDS) is available from the Fosroc website. Read the SDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

Product disclaimer

This Technical Data Sheet (TDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this TDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.

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