

FOSROC® XR 90

constructive solutions

General purpose fast-setting cementitious bedding and repair mortar.



Uses

FOSROC® XR 90 is used for bedding levelling and installation of street ironwork and applications which require high early strength to help reduce road closure times.

FOSROC® XR 90 can be used for emergency and general concrete repairs.

Advantages

- Rapid strength gain – will accept traffic in 120 minutes
- Pre-mixed and bagged material which only requires the addition of clean water
- Less expensive than epoxy and polyester resin mortars
- Shrinkage compensated formulation
- Part bags may be mixed
- Hand or mechanical mixing
- Manufactured under an approved BS EN ISO 9001 Quality System
- Easy to use

Standards compliance

Conforms to Department of Transport Specification, HD27/04.

Design Manual for Roads and Bridges, Vol. 7:Sec 2: 3.11. requirements for rapid repair.

Description

FOSROC® XR 90 is supplied as a pre-mixed blend of cements, silica sands and additives, which only requires mixing with clean water to produce a consistent mortar. It has excellent bond strength without the use of a primer

and can be applied in thicknesses of 10mm to 75mm in one application.

FOSROC® XR 90 has been specifically formulated for bedding highway ironwork, with return to service within 120 minutes of placing and is particularly useful where delays to construction need to be avoided.

FOSROC® XR 90 can be applied in thicknesses of 10mm to 75mm in one application.

Properties

Property	Typical result
Compressive Strength @ 20°C	120mins: 20N/mm ² 1 day: >30N/mm ² 28 days: >50N/mm ²
Total chloride ion content	0
Tensile strength @ 28 days	3.5N/mm ²
Working life	5 -10 minutes*
Setting time	10 -15 minutes*
Return to service	120 minutes*
Fresh wet density	2200 Kg/m ³

*dependant on temperature

Instructions for use

Preparation

Saw cut or cut back the extremities of the repair locations to a depth of at least 10 mm to avoid feather-edging and to provide a square edge. Break out the complete repair area to a minimum depth of 12 mm 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 or abrasive-blasting.

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..

Substrate priming

Pre-wet the area with clean water and remove any excess to leave a damp surface

When used as a repair mortar, an excellent bond strength can be achieved by mixing FOSROC® XR 90 into a slurry and using it as a primer immediately prior to applying FOSROC® XR 90 mortar.

Mixing

Mixing should be carried out using gloved hands. Fosroc® XR90 should be added to clean water. Use enough water

FOSROC® XR 90

to initially produce a fluid grout and then mix in sufficient powder to produce a mortar of the required consistency. Ensure that all the powder is thoroughly wetted and mixed. 25 kg of dry powder requires 3.5 litres of clean water. Due to its rapid set characteristics do not mix more than can be placed and finished in 5 minutes. This is typically 3 – 5 kilos. When sufficient labour is available it can be mixed with a slow speed drill and paddle. Due to its rapid setting characteristics the paddle should be cleaned immediately after each mixing operation

When ambient temperature is between 1°C and 10°C the use of warm water up to a maximum of 25°C is recommended.

Application

Apply the mixed FOSROC® XR 90 mortar over the pre-wetted substrate. Apply within 5 minutes of mixing, ensuring maximum contact before the material sets. Level the manhole/gully frame before the mortar sets

Cleaning

FOSROC® XR 90 should be removed from tools, equipment and mixers with clean water immediately after

Limitations

FOSROC® XR 90 should not be used when the temperature is below 1°C and falling. Exposure to heavy rainfall prior to the final set may result in surface scour. The product should not be exposed to moving water during application or totally immersed in water for the first 24 hours after application. If any doubts arise concerning temperature or substrate conditions, consult the local Fosroc office.

Storage

Store in dry conditions in the original, unopened bags or tubs at between 5°C and 35°C.

6 months if stored as above. If stored at high temperatures and/or high humidity conditions the shelf life may be reduced to less than 3 months.

Estimating

Supply

25 kg bags

Coverage and yield

Approximately 12.0 litres / 25 kg bag (1.0 m² at 12 mm thickness).

Notes: The actual yield per bag of FOSROC® XR 90 will depend on the consistency used. The coverage figures for liquid products are theoretical — due to wastage factors and the variety and nature of possible substrates, practical coverage figures will be reduced.

Health & safety

For further information refer to appropriate Product Safety Data Sheet

Fire

FOSROC® XR 90 is non-flammable.



Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Services, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification of information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products, whether or not in accordance with any advice, specification, recommendation of information given by it.

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