

FOSROC

XR

- simply mixed,
long lasting.

At Fosroc we understand that **time** is a key factor in highway reinstatement. In order to minimise traffic disruption, the job needs to be finished from breakout to completion in the shortest time possible.

The FOSROC® XR Highway Maintenance System is specifically designed with the contractor in mind. As well as being formulated to cure to a high level of strength quickly, FOSROC® XR mortars and concretes are designed to be **easy to mix** and apply. Packs are pre-mixed, only requiring the addition of water and are workable enough to be mixed by gloved hand or machine. This makes it easy for the user and reduces the overall job time.

FOSROC® XR 45 and FOSROC® XR 90 are also available in handy 25kg (18litre) buckets so that the water can be simply added to the pack.



Strength is key a feature of the FOSROC® XR Highway Maintenance System. While the products are simply mixed and applied, you need to be sure that the job has been done right. FOSROC® XR products are designed to give high compressive strength early, at high and low temperatures. This means that you can be confident that sufficient strength has been reached to ensure the repairs can be trafficked safely whatever the ambient temperature. More importantly, the FOSROC® XR products are **durable** and long lasting, meaning that once the repairs have been made they retain their strength and integrity long-term.

■ FOSROC® XR products conform to Department of Transport Specification HD 27/94. Design Manual for Roads and Bridges Vol 7 Section 2:
'3.11 Mortars for bedding ironwork such as manhole cover frames during repairs may be trafficked when the strength is expected to be 20N/mm2. For rapid construction, this strength should be achieved within 2 hours'

	FOSROC® XR 45	FOSROC® XR 90	FOSROC® XR PE20	FOSROC® XR RSC	FOSROC® XR Cobbleset
Pack size/weight	25kg bag or 25kg bucket	25kg bag or 25kg bucket	15kg bucket	25kg bag	25kg bag
Water addition per pack	Up to 3.5litres	Up to 3.3litres	n/a One can resin per pack	Trowelable 2-2.4l Flowable 2.5-2.7l	Up to 3.7litres
Yield	12.5litres	12.3litres	6 litres	12.1litres	12.5litres
Working life	5-10 mins	5-12 mins	5-10 mins	5-10 mins	5-15 mins

	FOSROC® XR 45	FOSROC® XR 90	FOSROC® XR PE20	FOSROC® XR RSC
Compressive strength @20°C	20N/mm ² in 45 mins	20N/mm ² in 90 mins	50N/mm ² in 60 mins	20N/mm ² in 60 mins



Fosroc Limited
Drayton Manor Business Park
Coleshill Road, Tamworth
Staffordshire, B78 3TL
Tel 01827 262222
Fax 01827 262444
www.fosroc.com



Who we are

Fosroc is one of the world's leading suppliers of specialist construction chemicals. With over 70 years experience of developing mortars, concretes and maintenance products for the construction industry, Fosroc offers high quality and unrivalled technical expertise to ensure the job gets done.

Fosroc has used its wealth of experience to develop a range of highway maintenance products, designed with you in mind. The FOSROC® XR Highway Maintenance System is a complete system of mortars and grouts that are robust and easy to use. From fast-setting mortars to concretes and ancillaries, FOSROC® XR products are specifically designed to be easily mixed and applied, allowing you to get the job done properly first time - every time.

With established distribution centres in the UK and a worldwide presence in more than 20 countries Fosroc offers easily accessible products and excellent technical support.

For more infromation about Fosroc and the FOSROC® XR Highway Maintenance System, contact one of our UK centres.

Fosroc Limited

Drayton Manor Business Park
Coleshill Road
Tamworth
Staffordshire
B78 3TL
Tel: +44 (0) 1827 262222
Fax: +44 (0) 1827 262444
e-mail: uk@fosroc.com
www.fosroc.com

Fosroc North

Unit 31
Salisbury Road
Haydock Industrial Estate
Haydock, Merseyside
WA11 9XG
Tel: 01942 717 534
Fax: 01942 718 942

Fosroc Midlands & South

Drayton Manor Business Park
Coleshill Road
Tamworth
Staffordshire
B78 3TL
Tel: 01827 262222
Fax: 01827 262444

Fosroc Ireland

22 Trench Road
Mallusk, Newtonabbey
County Antrim
Northern Ireland
BT36 8TY
Tel: 028 90 848 315
Fax: 028 90 342 521

Unit 45
John F Kennedy Avenue
Bluebell
Dublin 12
Tel: +353 (0) 1450 1512
Fax: +353 (0) 1450 5445

Fosroc Scotland

28 Nurseries Road
Baillieston Distribution Centre
Garrowhill, Glasgow
G69 6UL
Tel: 0141 781 1878
Fax: 0141 781 0785

Important Note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification or 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 or information given by it.

FOSROC



constructive solutions



Highway Maintenance System





FOSROC® XR is a series of products designed for the fast and long-lasting reinstatement of roads and highways.

FOSROC® XR offers a comprehensive system that meets a variety of highway maintenance needs.







From levelling and installation of ironwork, concrete repair and instant road repair, to paving installation and line marking, FOSROC® XR is a complete solution that allows the job to be done quickly and effectively first time - every time.

FOSROC® XR 45 and XR 90 bedding mortars are designed to give high early strength to help minimise road closure times, while FOSROC® XR PE20 polyester resin mortar gives exceptional durability for ironwork that is heavily trafficked. All are formulated to cure at high and low temperatures, meaning effective application all year round.

FOSROC® XR RSC provides emergency reinstatement of concrete roads and pathways, while FOSROC® XR Cobbleset paving grout is specifically designed for granite setts typically used in pedestrianised zones.

All FOSROC® XR products are formulated in accordance with Department of Transport Specification. In addition, Fosroc offers world class technical support to specifiers and users of its products.

For further information about FOSROC® XR and other products please contact us for a fast and expert service.

	<div>FOSROC^{fi} XR 45 BEDDING AND REPAIR MORTAR</div>	<div>FOSROC^{fi} XR 90 GENERAL PURPOSE FAST-SET MORTAR</div>	<div>FOSROC^{fi} XR PE20 POLYESTER RESIN MORTAR</div>	<div>FOSROC^{fi} XR RSC RAPID SETTING CONCRETE</div>	<div>FOSROC^{fi} XR COBBLESET PAVING GROUT</div>	<div>FOSROC^{fi} LOKFIX RESIN ANCHOR GROUT</div>																																																																												
																																																																																		
Uses	<p>Installation and levelling of street ironwork, especially where time is at a premium. Ideal where interruptions to traffic flow must be minimised.</p> <ul style="list-style-type: none">■ Bedding/levelling of manhole frames■ Emergency concrete repairs■ Fixing signposts and street furniture■ Bedding gully grates and frames■ Tidal repair projects	<p>Installation and levelling of street ironwork and applications which require high early strength to help reduce road closure times. Can be used for emergency and general concrete repairs.</p> <ul style="list-style-type: none">■ Bedding/levelling of manhole frames■ Emergency concrete repairs■ Fixing signposts and street furniture■ Bedding gully grates and frames	<p>Bedding and installation of manhole frames on Type 1 & 2 carriageways. Where rapid installation and minimum delay are of importance.</p> <ul style="list-style-type: none">■ Bedding and fixing kerbstones■ Ideally suited for the repair and re-profiling of precast concrete units■ May be applied in thicknesses of 5mm to 75mm	<p>Emergency reinstatement of patches in concrete pavements, airport aprons, roadways and reinstatement around manhole access covers.</p> <ul style="list-style-type: none">■ Secure manhole frames■ Concrete reinstatement/backfill■ Emergency concrete repair■ Reinforcing street furniture■ Tidal repair projects	<p>Rapid pointing of granite setts, pre-cast concrete stone pavements and slabs. Ideal for busy pedestrianised areas and where minimum public disruption is required.</p> <ul style="list-style-type: none">■ Pointing of granite setts■ Fixings bollards and street furniture■ Grouting beneath signpost base plates	<p>High strength corrosion resistant anchoring of bolts where high speed installation and early application of load is required.</p> <ul style="list-style-type: none">■ MoT bolts■ Fixing barriers and lamposts■ Base plates■ Reinforcement bars																																																																												
Features	<ul style="list-style-type: none">■ Rapid strength gain – will accept traffic in 45 minutes■ Pre-mixed and packed material which only requires the addition of clean water■ Cost effective in comparison with resin mortars■ Shrinkage compensated formulation■ Part bags may be mixed■ Mixed by hand or mechanical mixing■ Manufactured under an approved BS EN ISO 9000 Quality System	<ul style="list-style-type: none">■ Rapid strength gain – will accept traffic in 120 minutes■ Pre-mixed and packed 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■ Mixed by hand or mechanically■ Manufactured under an approved BS EN ISO 9000 Quality System■ Easy to use	<ul style="list-style-type: none">■ Fast development of strength minimises disruption■ Versatile mix part packs to consistency required■ No primer required■ High chemical and oil resistance■ Will cure down to 0°C■ Manufactured under an approved BS EN ISO 9000 Quality System■ Mixed by gloved hand or mechanically■ High flexural and tensile strengths	<ul style="list-style-type: none">■ Rapid strength gain – will accept traffic in 60 minutes■ Pre-mixed and bagged material which only requires the addition of clean water■ High strength. Abrasion and weather resistant■ Shrinkage compensated formulation■ Self compacting, eliminating honeycombing and voids■ Mixed by gloved hand or mechanically■ Manufactured under an approved BS EN ISO 9000 Quality System	<ul style="list-style-type: none">■ Rapid strength gain – will accept foot traffic in 30 minutes■ Pre-mixed and bagged material which only requires the addition of clean water■ Excellent bond strength■ Shrinkage compensated formulation■ Easy to use■ Manufactured under an approved BS EN ISO 9000 Quality System	<ul style="list-style-type: none">■ Easy to mix and apply■ Rapid strength gain■ Vibration resistant■ Corrosion resistant■ Non-expansive■ Increased flowability■ Can be placed underwater■ Tested in accordance with BS 5080, BS 7861 and BS 6316																																																																												
Technical	<table><tr><td>Compressive strength @ 20°C</td><td>45 mins: 21N/mm² 7 days: >50N/mm² 28 days >60N/mm²</td></tr><tr><td>Compressive strength cured @ 5°C</td><td>60 mins: 20N/mm²</td></tr><tr><td>Tensile strength</td><td>3N/mm²</td></tr><tr><td>Working life</td><td>5-10 mins</td></tr><tr><td>Setting time</td><td>5-15 mins</td></tr><tr><td>Return to service</td><td>45 mins</td></tr><tr><td>Fresh wet density</td><td>2200Kg/m³</td></tr></table>	Compressive strength @ 20°C	45 mins: 21N/mm ² 7 days: >50N/mm ² 28 days >60N/mm ²	Compressive strength cured @ 5°C	60 mins: 20N/mm ²	Tensile strength	3N/mm ²	Working life	5-10 mins	Setting time	5-15 mins	Return to service	45 mins	Fresh wet density	2200Kg/m ³	<table><tr><td>Compressive strength @ 20°C</td><td>120 mins: 20N/mm² 1 day: >30N/mm² 28 days >50N/mm²</td></tr><tr><td>Tensile strength</td><td>3.5N/mm²</td></tr><tr><td>Working life</td><td>5-10 mins</td></tr><tr><td>Setting time</td><td>10-15 mins</td></tr><tr><td>Return to service</td><td>120 mins</td></tr><tr><td>Fresh wet density</td><td>2200Kg/m³</td></tr></table>	Compressive strength @ 20°C	120 mins: 20N/mm ² 1 day: >30N/mm ² 28 days >50N/mm ²	Tensile strength	3.5N/mm ²	Working life	5-10 mins	Setting time	10-15 mins	Return to service	120 mins	Fresh wet density	2200Kg/m ³	<table><tr><td>Compressive strength @ 20°C</td><td>60 mins: 50N/mm² 120 mins: >60N/mm² 28 days >70N/mm²</td></tr><tr><td>Tensile strength</td><td>9N/mm²</td></tr><tr><td>Working life</td><td>5-10 mins</td></tr><tr><td>Setting time</td><td>15 mins</td></tr><tr><td>Return to service</td><td>60 mins</td></tr><tr><td>Fresh wet density</td><td>2140Kg/m³</td></tr></table>	Compressive strength @ 20°C	60 mins: 50N/mm ² 120 mins: >60N/mm ² 28 days >70N/mm ²	Tensile strength	9N/mm ²	Working life	5-10 mins	Setting time	15 mins	Return to service	60 mins	Fresh wet density	2140Kg/m ³	<table><tr><td>Compressive strength @ 20°C</td><td>60 mins: 20N/mm² 7 days: >50N/mm² 28 days >60N/mm²</td></tr><tr><td>Working life</td><td>5-10 mins</td></tr><tr><td>Setting time</td><td>10-15 mins</td></tr><tr><td>Return to service</td><td>60 mins</td></tr><tr><td>Fresh wet density</td><td>2200Kg/m³</td></tr></table>	Compressive strength @ 20°C	60 mins: 20N/mm ² 7 days: >50N/mm ² 28 days >60N/mm ²	Working life	5-10 mins	Setting time	10-15 mins	Return to service	60 mins	Fresh wet density	2200Kg/m ³	<table><tr><td>Compressive strength @ 20°C</td><td>120 mins: 25N/mm² 7 days: >35N/mm² 28 days >40N/mm²</td></tr><tr><td>Working life</td><td>5-15 mins</td></tr><tr><td>Setting time</td><td>10-15 mins</td></tr><tr><td>Return to service</td><td>60 mins</td></tr><tr><td>Fresh wet density</td><td>2200Kg/m³</td></tr></table>	Compressive strength @ 20°C	120 mins: 25N/mm ² 7 days: >35N/mm ² 28 days >40N/mm ²	Working life	5-15 mins	Setting time	10-15 mins	Return to service	60 mins	Fresh wet density	2200Kg/m ³	<table><tr><td></td><td>S25</td><td>P25</td></tr><tr><td>Compressive strength @ 20°C</td><td>83N/mm²</td><td>87N/mm²</td></tr><tr><td>Tensile strength</td><td>11N/mm²</td><td>11N/mm²</td></tr><tr><td>Flexural strength</td><td>20N/mm²</td><td>19N/mm²</td></tr><tr><td>Compressive modulus</td><td>13 GPa</td><td>13 GPa</td></tr><tr><td>Density</td><td>1880 to 1920Kg/m³</td><td>1880 to 1920Kg/m³</td></tr></table>		S25	P25	Compressive strength @ 20°C	83N/mm ²	87N/mm ²	Tensile strength	11N/mm ²	11N/mm ²	Flexural strength	20N/mm ²	19N/mm ²	Compressive modulus	13 GPa	13 GPa	Density	1880 to 1920Kg/m ³	1880 to 1920Kg/m ³
Compressive strength @ 20°C	45 mins: 21N/mm ² 7 days: >50N/mm ² 28 days >60N/mm ²																																																																																	
Compressive strength cured @ 5°C	60 mins: 20N/mm ²																																																																																	
Tensile strength	3N/mm ²																																																																																	
Working life	5-10 mins																																																																																	
Setting time	5-15 mins																																																																																	
Return to service	45 mins																																																																																	
Fresh wet density	2200Kg/m ³																																																																																	
Compressive strength @ 20°C	120 mins: 20N/mm ² 1 day: >30N/mm ² 28 days >50N/mm ²																																																																																	
Tensile strength	3.5N/mm ²																																																																																	
Working life	5-10 mins																																																																																	
Setting time	10-15 mins																																																																																	
Return to service	120 mins																																																																																	
Fresh wet density	2200Kg/m ³																																																																																	
Compressive strength @ 20°C	60 mins: 50N/mm ² 120 mins: >60N/mm ² 28 days >70N/mm ²																																																																																	
Tensile strength	9N/mm ²																																																																																	
Working life	5-10 mins																																																																																	
Setting time	15 mins																																																																																	
Return to service	60 mins																																																																																	
Fresh wet density	2140Kg/m ³																																																																																	
Compressive strength @ 20°C	60 mins: 20N/mm ² 7 days: >50N/mm ² 28 days >60N/mm ²																																																																																	
Working life	5-10 mins																																																																																	
Setting time	10-15 mins																																																																																	
Return to service	60 mins																																																																																	
Fresh wet density	2200Kg/m ³																																																																																	
Compressive strength @ 20°C	120 mins: 25N/mm ² 7 days: >35N/mm ² 28 days >40N/mm ²																																																																																	
Working life	5-15 mins																																																																																	
Setting time	10-15 mins																																																																																	
Return to service	60 mins																																																																																	
Fresh wet density	2200Kg/m ³																																																																																	
	S25	P25																																																																																
Compressive strength @ 20°C	83N/mm ²	87N/mm ²																																																																																
Tensile strength	11N/mm ²	11N/mm ²																																																																																
Flexural strength	20N/mm ²	19N/mm ²																																																																																
Compressive modulus	13 GPa	13 GPa																																																																																
Density	1880 to 1920Kg/m ³	1880 to 1920Kg/m ³																																																																																

Fosroc Limited

tel: 01827 262222

fax: 01827 262444

e-mail: uk@fosroc.com

www.fosroc.com

