Ronacrete
WORLD CLASS MANUFACTURER

Ronafix SBR (Concrete Repair)

Polymer admixture for use with concrete repair mortars

FEATURES

- thin section application
- waterproof
- frostproof
- high compressive strength
- high flexural strength
- high tensile strength
- excellent adhesion
- provides protection to steel reinforcement

Description

Ronafix SBR is a single part modified styrene butadiene liquid additive for cement mortars which enhances physical and chemical properties, allows mortars to be placed in thin section, provides waterproofing and resistance to frost and promotes adhesion to building surfaces.

Mortars containing Ronafix SBR are used for a wide range of applications where thin high strength high performance mortars are required. Typical minimum application depth is 6mm.

Mix Designs & Physical Properties

There are 2 mix designs when using Ronafix SBR as a concrete repair mortar. Ronafix SBR Mix Design A is used for concrete repairs where there is no exposed steel reinforcement and Ronafix SBR Mix Design D is used where any reinforcement is exposed.

All quoted data on the following page is based on tests conducted at 20°C

Compression tests:	**100mm cubes**
Flexural tests:	**100 x 25mm x 25mm prisms**
Tensile tests:	**dumbell specimens**
Test Authority:	**British Precast Concrete Federation** **CMC Laboratories** **W & C French Ltd** **Ronacrete Laboratories**

Laboratory Results: Results shown are in N/mm². Maximum laboratory strengths are achieved by casting and curing cubes in ideal working conditions; site strengths will be lower.

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Mix Designs & Physical Properties (continued)

Mix Design	Mix A	Mix D
Cement (CEM II 42.5)	50kg	50kg
Medium sharp sand	125kg	125kg
Ronafix SBR	9 litres	14 litres
Water addition	See note below	See note below
Yield	0.1m^3	0.1m^3

Compressive Strength		
1 day	38N/mm^2	22N/mm^2
7 days	56N/mm^2	42N/mm^2
28 days	70N/mm^2	53N/mm^2

Tensile Strength		
7 days	5.0N/mm^2	5.7N/mm^2
28 days	7.1N/mm^2	8.4N/mm^2

Flexural Strength		
7 days	12.9N/mm^2	15.8N/mm^2
28 days	16.2N/mm^2	19.1N/mm^2

Note: Water addition
Water addition will depend on the sand water content. To test for correct consistency a ball should be made of the mortar, squeezing of the ball should not produce free liquid. When the ball is pulled apart it should separate in two pieces without crumbling.

Instructions for Use

Preparation
All concrete and defective material identified for removal must be removed back to a suitable substrate which is sound and stable and which will accept the repair mortar.
Reinforcing steel in the repair area must be exposed, and concrete cut back along the length of the steel to expose not less than 25mm of clean uncorroded steel. Loose rust and scale must be removed (eg. by the use of wire brushing and/or emery cloth or sand paper). Cut around the periphery of spalled areas to a minimum depth of 6mm at 90° to avoid dished edges and feather edged repairs.

The concrete must be removed around the steel to allow not less than 15mm of repair mortar to be placed around the steel. Corroded steel must be replaced where considered necessary by the engineer.

All removal of concrete and steel must be carried out in accordance with the specifiers recommendations.

All surfaces must be cleaned to remove loose dust, debris and surface contamination which may prevent adhesion of repair mortar to concrete and steel. When repairing chloride contaminated concrete steel must be grit blasted back to bright steel.

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Instructions for Use (continued)

Damping
Following preparation of concrete and steel, thoroughly damp all concrete surfaces to be repaired. Remove any standing water. Water used must be clean and of potable quality.

Priming
Brush apply a 1:1 Ronafix SBR:cement primer coat to the steel and allow to become tacky, not dry. If the primer dries it must be thoroughly scarified and reapplied.

When priming coat on steel is tacky, brush a single coat of primer on to the damp concrete or substrate and apply a second coat on to the steel. Ensure that the first priming coat applied to the steel is not removed during the application of the second coat.

The Ronafix SBR repair mortar must be applied on to the wet or tacky primer before the primer dries. If the primer dries it must be thoroughly scarified and reapplied.

Mixing
Mix the Ronafix SBR modified mortar and apply in layers to achieve the required thickness, reform the original profile of the concrete and cover reinforcing steel. Layer thickness will vary according to the nature of the substrate, the shape and size of area being repaired and mixing and application technique.

Ronafix SBR modified mortars can be mixed by hand or machine. Machine mixing will more easily provide a mortar with even dispersion of mix components and a lower water/cement ratio. The use of a forced action mixer (eg. Creteangle or drill and paddle) will provide optimum performance; free fall mixers cause the mortar to ball up with a resultant reduction in performance and must not be used.

Placing
Apply the mortar in layers to achieve the required thickness, reform the original profile of the concrete and cover reinforcing steel. Layer thickness will vary according to the nature of the substrate, the shape and size of area being repaired and mixing and application technique.

Materials may be applied using a combination of hand packing or traditional tools. The concrete repair mortar must be well compacted to prevent honeycombing and voids.

Apply the concrete repair mortar in successive layers to achieve the required thickness. Scratch the face of intermediate layers and apply a coat of Ronafix SBR:cement primer immediately prior to applying the next layer.

If applying a protective or decorative coating leave the final layer with a sponged or wood float finish to aid adhesion.

Cure the finished repair with Ronacrete Curing Membrane or tight fitting polythene.

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Packaging

Ronafix SBR is supplied in 5 litre, 25 litre, 210 litre and 1000 litre containers.

Shelf Life and Storage

Ronafix SBR should be stored unopened between 5°C and 25°C in dry warehouse conditions away from direct heat and sunlight. Shelf life is approximately 9 months in unopened containers.

Health and Safety

Refer to Safety Data Sheet

Site attendance

When on site Ronacrete representatives are able, if asked, to give a general indication of the correct method of installing a Ronacrete product. It is important to bear in mind that Ronacrete Ltd is a manufacturer and not an application contractor and it is therefore the responsibility of the contractor and his employer to ensure he is aware of and implements the correct practices and procedures to ensure the correct installation of the product and that liability for its correct installation lies with the contractor and not with Ronacrete Ltd.

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