



STRUCTURAL REPAIR VO

VERTICAL AND OVERHEAD STRUCTURAL CONCRETE REPAIR MORTAR



20kg

APPLICATION:

Dampen the concrete substrate and then thoroughly prime it with Cemix® Multibond brushed undiluted into the surface just prior to mortar application. Firmly push the Cemix® Structural Repair VO into the surface to obtain a wet bond while the Cemix® Multibond is still wet. Do not let the Cemix® Multibond dry. Application is from one side of the repair to the other completely filling the void. Firmly compact the mortar into the void & trowel finish as required. Cemix® Structural Repair VO can be used from 5mm depths upwards, however for a durable repair in demanding applications, apply product to a minimum depth of 10mm. Fill void to a maximum depth of 30mm for overhead applications & 40mm for vertical applications in one go. Apply product in layers for thicker repairs - Roughen the preceding layer prior to it hardening & prime the preceding layer after it has hardened as discussed above. Depending on the situation, repairs up to 100mm can be achieved in layers of wet on wet.

DESCRIPTION:

Cemix® Structural Repair VO is a high performance fibre reinforced, polymer and micro silica modified, shrinkage compensated, concrete repair mortar for concrete repairs & patching in 5mm + vertical & overhead applications. It is typically hand placed but can also be wet sprayed onto concrete substrates. It is used in remedial works where high performance & durability are required.

TYPICAL APPLICATION/USES:

Cemix® Structural Repair VO may be used for:

- Vertical & overhead repairs to concrete structures
- Columns
- Underside of beams & slabs
- Bridges
- Marine structures
- Water retaining structures
- Precast concrete
- Sewage and water treatment tanks
- Man holes

ADVANTAGES:

- One component
- Versatile 5mm to high-build application depths
- Vertical, overhead & horizontal use
- Hand placed or wet sprayed
- Fibre reinforced
- Shrinkage compensated
- Short curing times
- High bond strength
- Durable
- Waterproof
- Impermeable to water borne aggressors such as chloride ions
- Improved abrasion resistance
- Polymer modified

DURABILITY ENHANCER, STEEL PROTECTIONS & WATERPROOFING:

Cemix® Structural Repair VO contains an integral crystalline concrete durability enhancer & waterproofing material, which further protects & waterproofs the mortar in-depth by making it completely impermeable to water borne aggressors such as chloride ions. This admixture permanently protects the mortar & imbedded structural steel from long-term corrosion & deterioration.

MOVEMENT / CONTROL JOINTS:

Honour any control joints in the concrete substrate – do not apply product over control joints.

CEMIX LTD
19 ALFRED STREET
ONEHUNGA 1061
AUCKLAND
NEW ZEALAND

0800 ASK CEMIX
WWW.CEMIX.CO.NZ



TECHNICAL DATA:

WORKING TIME:	30 minutes at 20°C
CHLORIDE ION PERMEABILITY:	<1000 Coloumbs
THERMAL COEFF. OF EXP:	9.0×10^{-6} mm/mm/°C
APPEARANCE:	Sand / Cement Grey
STRENGTH:	30MPa @ 7 days; 50MPa @ 28 days
BOND STRENGTH:	>3MPa
APPLICATION TEMP:	5°C - 30°C
<i>The data shown above reflects typical results based on laboratory testing under controlled conditions. Reasonable variations may occur on site.</i>	

COVERAGE:

20kg: Approximately 11.1L or 0.0111m³

PACKAGING:

Cemix® Structural Repair VO is available in 20kg.

STORAGE & SHELF LIFE:

Cemix® Structural Repair VO can be stored in its original packaging in a dry place well sealed for a period of six (6) months after production. Do not store opened bags.

CLEANING:

Clean all tools with water & brush immediately after use.

SUBSTRATE PREPARATION:

Concrete substrates should be sound & roughened to ensure a good bond. They should be uncoated & clean, free from all contaminants, loose particles, dirt, oil, mould, curing compounds, sealers & paints etc. For a durable repair cut a square or rectangular perimeter edge around the repair at least 10mm in depth. Remove all oxidation from exposed rebar & ensure that there is at least 25mm (or 'finger room') behind each rebar. For deep critical repairs use anchors and steel mesh as required to enhance bonding. The better the substrate preparation & condition the better the end result. The concrete substrate should ideally be at least 3 months old.

MIXING:

Mix whole bags of product. Add 2.7L of water to mixer & then add product gradually to water. Add rest of water slowly whilst mixing until the desired consistency is achieved. Maximum total water is approximately 3.2L per 20kg bag. Mix thoroughly for 4 minutes using a drill & paddle or mechanical mortar mixer. Do not mix more product than can be mixed, placed & finished in 45 minutes. In hot weather consider using chilled mixing water. In very cold weather consider using warm mixing water.

CURING:

It is very important to prevent early plastic state moisture loss prior to the product setting. Cure product thoroughly after it has set by keeping it wet & covered for at least 7 days. Avoid product freezing for at least 3 days.

LIMITATIONS:

Substrate Temperature - +5°C min. / +30°C max.

Ambient Temperature - +5°C min. / +30°C max.

STORAGE:

Can be stored in its original packaging in a dry place well sealed for a period of six (6) months after production. Do not store opened bags.

SAFETY:

Avoid contact with eyes & skin, both from wet & dry mix. Do not breathe in dust. Wear suitable protective clothing, gloves, eye protection & barrier cream. Wear a suitable dust mask. Wash thoroughly after handling & store any leftover material properly.

FIRST AID:

Irrigate eyes & skin with plenty of water & seek medical advice immediately.

SPILLS AND LEAKS:

Keep out of sewers & storm water drains & dispose of any leftover material as trade waste in accordance with local authority guidelines.

DISCLAIMER:

Recommendations & advice regarding the use of this product are to be taken as a guide only. Other than as appears on this products packaging, CEMIX® LTD does not give any warranty express or implied as to the suitability of this product for your particular use, because the usage of this product is beyond the control of CEMIX® LTD. If you need advice concerning the use of suitability of this product for your particular application, please contact CEMIX® LTD first.

