

Fiber-reinforced repairing & anchoring mortar of R4 type

DOMOREPAIR R4 is a fiber-reinforced, thixotropic, non-shrinking, ready to use repairing mortar for the repairing of visible concrete, for up to 40 mm maximum thickness per layer. A product suitable for horizontal and vertical surfaces.

Field of application

DOMOREPAIR R4 is suitable for application:

- Restoration weathered concrete such as beams, walls, balconies with columns
- In any structural concrete repair as industrial floors, motorways, bridges, sewage pipes, boardwalks, etc.
- For damaged corners and finishing repairs
- Cladding steel reinforcement which have deteriorated due to oxidation
- For filling cavities, cracks, small holes, etc.
- At the joints of prefabricated elements
- For placing all kinds of anchoring like hooks, steel, rods, etc.

Advantages

- Ready to use. Just add water.
- Excellent adhesion on the substrate, due to its composition of organic polymers and synthetic resins.
- Gives high strength.
- Minimizes danger of cracking, because is non shrinking.
- Excellent workability.
- Thixotropic.
- Excellent results at assembling.
- Waterproof, freeze & weather resistant after hardening.
- Does not contain chlorides or other corrosive salts.

Method of use

Substrate condition:

The application surface (concrete, mortar, stone, and brick) must be sound and stable. Loose parts, rust, grease, dust and cement skin must be removed prior to application. Smooth concrete surfaces should be roughened.

Any exposed reinforcement should be cleaned from rust by mechanical brushing or sandblasting and then coated with DOMOFER.

Before the DOMOREPAIR R4 application wet well the substrate with water but without creating standing water.

Mixing

Mixing ratio:

DOMOREPAIR R4:WATER 6:1 w/w

(about 4.2 L water for 25 kg)

Fill a pail with water and add DOMOREPAIR R4. Then, mix well until the blend is homogeneous, without lumps.

Optimal mixing is achieved with a low power agitator.

Mixing by hand is not advised.

Application:

Apply the mix by spatula or trowel, depending on the situation.

When repairing corners and edges, it is recommended to use wood formwork until the hardening of DOMOREPAIR R4.

Do not mix more product that you intend to use.

Additional information:

- When preparing elements of large thickness (more than 3-4 cm) apply in layers. Every time a new layer can be applied without the prior been dried completely.
- To avoid too fast setting of the already applied mix and to prevent crack forming, protect the treated surface with a wet cloth or wet it with water.
- Setting time is increased when the temperature is low or when more water is added than necessary.
- Do not add cement, sand or gravel to DOMOREPAIR R4.
- Do not add water if the mortar has begun to set.

- Do not apply at temperatures below 5°C and above 35°C or during rain. When the application temperature is at 5-8°C, then the mixing and saturation water of the substrate is recommended to be warm to hot. At 30-35°C, water is recommended to cold.
- The product contains cement and is classified as irritant.

Storage

It can be retained at least 12 months from its production day, in unopened package protected from the moisture.

Packaging

Bags of 25 kg.

Certificates

The product is certified according to EN 1504-3 (Structural and non-structural repairs) as R4 repairing mortar.

Consumption

17-18 kg/m² for a layer of 1 cm thickness.

Specifications

Form	Powder
Color	Grey
Bulk density	1.30 ± 0.04 g/cm ³ (23°C)
Mixing ratio	Domorepair R4 : Water 6 : 1 w/w
Specific weight of mix	2.1 ± 0.06 kg/L (23°C)
pH of mix	12
Application temperature	+5°C to +35°C
Pot life	60 min (20°C)
Compressive strength (EN 12190)	55.3 MPa
Chloride ion content (EN1015-17)	<0,05%
Adhesive bond (EN 1542)	>2,0 MPa
Thermal compatibility Part 1, Freeze-thaw (EN 13687-1)	>2,0 MPa
Carbonation resistance (EN 13295)	Smaller depth of carbonation from control concrete
Elastic modulus (EN 13412)	>20 GPa
Capillary Absorption (EN 13057)	<0.5 kg/m ² h ^{0.5}

All the technical data stated in the present Technical Data Sheet are based on laboratory tests and the knowledge and experience of the company. Different conditions may apply at field applications that are beyond the control of the company. Therefore, the end user is ultimately responsible to make sure that the product is suitable for the application in question and to know the real conditions of the project.