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# REP MUR AR

## **Fibre reinforced structural repair mortar with corrosion inhibitor additives**

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Filling of voids and cracks.

Reparation of concrete surfaces.

High mechanical properties.

With shrinkage compensation.

Especially suitable in aggressive environments. Resistant to sulphates.

Contains corrosion inhibitor additives. Suitable for the preservation or restoration of the passivation.

Fibre reinforced.

Chloride-free.

Outstanding workability.

**Classified R4 according UNE EN 1504-3.**

**Protects against corrosion, certified according EN 1504-7.**



# REP MUR AR

## Fibre reinforced structural reparation mortar with corrosion inhibitor additives

### Areas of application:

Filling of voids and cracks. Repairing and levelling of concrete surfaces, especially in aggressive environments. Resistant to sulphates, protects the framework of the fixed concrete.

Filling of joints between concrete sections.

Repair of concrete precast elements.

Structural repair of concrete structures such as: balcony edges, cantilevers, pillars, beams...

External and internal.

### Properties:

Excellent adhesion to concrete.

Hardens compensating shrinkage to minimize crack apparition.

High mechanical strength.

Good chemical resistance, resistant to aggressive environments with sulphate presence.

Additivated with corrosion inhibitors protects the fixed concrete against corrosion.

Good abrasion resistance.

Can be applied from 0.5 mm to 70 mm.

### Substrate preparation:

The surface can be dry or moist but should be mature, stable, sound, clean and free of barriers to adhesion (dust, grease oil, loose paints,...). Substrate must be strong enough to receive the REP MUR AR mortar (pull off strength min. 1.5N/mm<sup>2</sup>). Damaged or contaminated concrete must be removed to obtain a keyed surface (grit or high water pressure blasting are recommended). Cut the edges of the repair vertically to a minimum depth of 5 mm.

In exposed reinforcement framework to a minimum grade of Sa 2.

The substrate to be applied on REP MUR AR, will be of at least +5 ° C and maximum +30 ° C.

### Priming:

The prepared substrate should be pre-soaked, preferably for 24 hours, but at least 2 hours before applying REP MUR AR. The surface must be mat-damp, but without standing water.

Especially for hand applications or on low porosity concrete, the adhesion can be improved using the epoxy primer ADIPOX PLUS (see Technical Data Sheet) as a bonding coat for REP MUR AR. The use of ADIPOX PLUS increases the protection against corrosion of the reinforcement bars.

The application of the REP MUR AR on the primed surface must be done wet on wet. Do not allow the bonding layer to dry out completely.

### Application:

To the required amount of clean water in a clean mixing container, add the powder whilst stirring thoroughly until a slump free mortar is produced. The mortar must be allowed to stand for 2-3 minutes prior to remixing again to improve its workability.

The mixing ratio is:

25kg REP MUR AR into 4 – 4 ¼ litres of clean water.

It is recommended to mix the product mechanically, either in a cement mixer or with a stirrer.

REP MUR AR can be hand, trowel or spray applied. Apply mixed product directly to the prepared damp substrate, or wet in wet onto the primed surface.

Apply to the desired layer thickness and level using a screeding beam, trowel or wooden board.

A thin contact layer before building up to the required thickness, wet on wet, will improve the wet adhesion and cohesion of the mortar, especially in case of hand application.

If two or more layers are needed apply the new layer wet on wet onto the existing layer.

Smoothing with a trowel or finishing by float or sponge can be done as soon as the mortar has begun to stiffen.

### Curing:

Protect the fresh mortar from earlier dehydration or freezing by using usual curing methods (polyethylene film, damp clothes, and curing agents).

### Caution:

Contains cement. Irritating to eyes and skin. Can cause serious eye injury. Keep out of the reach of children. Avoid any contact with the eyes and skin. In case of contact with the eyes, rinse immediately with plenty of water and consult a doctor. In the event that the casualty wears contact lenses, retreat and continue rinsing.

Wear appropriate protective gloves. Wash contaminated skin with soap and water.

In the set state it is physiologically and ecologically safe.

Disposal of waste and empty containers must be done in accordance with current local / regional / national / international legislation.

**GISCODE ZP1 = product with low chromate cement content.**

For more information see the Safety Data Sheet in force.


### Technical data:


*(Based on tests carried out in out laboratory in accordance with current regulations)*

<b>Mixing ratio:</b>	Approx. 4,0 - 4,25 l. water : 25 kg. powder.
<b>Density:</b>	Approx. 1,4 Kg/l
<b>Fresh mortar density:</b>	Approx. 2,1 kg./l.
<b>Material requirement:</b>	Approx. 1,8 kg of powder/m <sup>2</sup> and mm.
<b>Workability (20°C):</b>	Approx. 60-90 min.
<b>Compressive Strength:</b>	Approx. 48 N/mm <sup>2</sup> (28 days)
<b>Flexural Strength:</b>	Approx. 8 N/mm <sup>2</sup> (28 days)
<b>Packaging:</b>	25 kg bags.
<b>Storage:</b>	can be stored for approximately 12 months in dry rooms in originally sealed packaging

# REP MUR AR

## Fibre reinforced structural reparation mortar with corrosion inhibitor additives

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ARDEX CEMENTO, S.A. P.I. Pla de Llerona, c/Holanda, 18 E-08520 Les Franqueses del Vallès – Barcelona T. 93 846 62 52 <b>13</b>	
20112 EN 1504-3:2006 <b>REP MUR AR</b> Polymer modified cementitious mortar (PCC) for structural repair of concrete structures EN 1504-3:R4	
Compressive strength:	<i>class R4</i>
Chloride ion content:	$\leq 0.05 \%$
Adhesive bond:	$\geq 2.0 \text{ MPa}$
Restrained shrinkage/expansion:	$\geq 2.0 \text{ MPa}$
Carbonation resistance:	<i>passed</i>
Elastic modulus:	$\geq 20 \text{ GPa}$
Thermal compatibility Part 1 - Freeze/thaw attack with deicing salt:	$\geq 2.0 \text{ MPa}$
Skid resistance:	<i>NPD</i>
Coefficient of thermal expansion:	<i>NPD</i>
Capillary absorption:	$\leq 0.5 \text{ kg}/(\text{m}^2 \cdot \text{h}^{0.5})$
Reaction to fire:	<i>A1</i>
Hazardous substances:	<i>Compliance with 5.4 of EN 1504-3</i>

 0370	
ARDEX CEMENTO, S.A. P.I. Pla de Llerona, c/Holanda, 18 E-08520 Les Franqueses del Vallès – Barcelona T. 93 846 62 52 <b>15</b>	
20112 EN 1504-7:2006 <b>REP MUR AR</b> Polymer modified cementitious mortar (PCC) for structural repair of concrete structures EN 1504-7	
Corrosion protection and workability :	Passed
Shear adhesion (resistance to tearing) :	Passed
Hazardous substances:	Compliance with 5.4 of EN 1504-7

*We assume the warranty for the perfect quality of our products. Our handling recommendations are based on trials and practical experience; they can, however, only be regarded as general advice without a quality warranty, as we have not influence on work site conditions and the execution of the work.*

*Country specific recommendations, depending on local standards, codes of practice, building regulations or industry guidelines, may effect specific installation recommendations.*

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