

aplicaTec

Reparación Grueso R4 PCC

Thixotropic mortar for structural concrete repairs in thick layer.

CE marking R4 class for PCC according to EN-1504-3
(Products for the protection and repair of concrete structures).



GlobalEPD
A VERIFIED ENVIRONMENTAL DECLARATION



Structural
concrete repair



Fibre-reinforced



Thick layer

DESCRIPTION

One-component, cement-based mortar with siliceous aggregates with coarse grain size, synthetic resins and fibre-reinforced.

APPLICATIONS

Structural integrity repair of reinforced concrete. Filling gaps, cracks, chips, corners of pillars... Levelling out concrete and mortar surfaces. Grouting of precast. Suitable for repair work according to principle 3, method 3.1 and 3.3, for structural reinforcement work according to principle 4, method 4.4 and for preserving and restoring passivity according to principle 7, method 7.1 of the UNE-EN 1504-9.

APPLICATION SURFACES

The application surface must be prepared before using manual or mechanical chopped to remove all the deteriorated concrete. The surfaces must be clean, sound and free from oils, grease, paint, dust, cement grouts, etc. Metal elements such as steel rebars must be free from rust. Remove the concrete from the back of the steel rebars. Cut the ends of the repair to ensure a minimum application thickness of 25 mm. Absorbent surfaces should be saturated with water before the product is applied. Make sure that no puddles form on the surface.

INSTRUCTIONS FOR USE

1. Gradually add mortar to the mixing water (3,1 litres per 25 kg bag).
2. Mix mechanically with clean water at low rpm until you obtain a smooth, lump-free paste.



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WARNINGS AND RECOMMENDATIONS

- Do not apply the product at temperatures below 5 °C or above 35 °C.
- Do not apply when frost or rain are forecasted.
- Absorbent surfaces should be saturated with water before the product is applied.
- Make sure that no puddles form on the surface.
- For thicknesses below 25 mm use aplicaTec Reparación R4 PCC.
- This product is ready to mix with water. Do not add any kind of additional substance which may alter its properties.
- Under unfavourable conditions, the surface must be cured for at least 24 hours after the product has been applied.
- We recommend wearing rubber gloves when handling this cementitious based product.
- All tools must be washed immediately after use. If the product is allowed to dry, it will only be possible to remove it by mechanical means.
- Storage: up to 12 months after manufacturing date in suitable temperature and humidity conditions.

PACKAGING

aplicaTec Reparación Grueso R4 PCC is available in 25 kg paper bags with moisture-proof plastic lining, dispatched on shrink-wrapped pallets weighing a total of 1,000 kg (40 bags).

TECHNICAL FEATURES

| FEATURES | VALUES | TEST METHOD |
|---------------------------------|--|--------------------------|
| Mixing water | 12,5 % (3,12 l x bag) | |
| Colour | Grey Mortar | |
| Compressive strength at 28 days | 50,0 N/mm ² | UNE-EN 12.190:1999 |
| Flexural strength at 28 days | 10,4 N/mm ² | UNE-EN 12.190:1999 |
| Chloride content | 0,01% | UNE-EN 1015:2000 |
| Adhesion | >2,0 N/mm ² | UNE-EN 1542:1999 |
| Shrinkage | >2,0 N/mm ² | UNE-EN 12617-4:2002 |
| Expansion | >2,0 N/mm ² | UNE-EN 12617-4:2002 |
| Carbonation resistance | <MC control concrete (0,45) | UNE-EN 13295:2005 |
| Elastic modulus | >20,0 Gpa | UNE-EN 13412:2002 |
| Fresh density (Kg/l) | Approx. 2,0 | |
| Grain size | 0-8 mm | |
| Coat thickness | 25-80 mm | |
| Consumption (dry mortar) | Approx. 1,8 Kg/m ² and mm thickness | |
| Pot life* | 30 minutes | |
| Reaction to fire | A1 | UNE-EN ISO 1182 and 1716 |

*This time may vary depending on environmental and weather conditions (21°C and 60% H).

aplicaTec® STRUCTURE REPAIR SYSTEM

aplicaTec Reparación Grueso R4 PCC is part of a repair system comprising:

- aplicaTec Armaduras : Anti-corrosion primer.
- aplicaTec Reparación R4 PCC / aplicaTec Reparación Grueso R4 PCC / aplicaTec Reparación Fluido R4 PCC : Structural repair mortars for thick layer.
- aplicaTec Reparación Fino R3 PCC / aplicaTec Cosmético Claro R2 PCC : Levelling and pore sealing mortars.

NOTE

The recommendations for use are based on our own knowledge and experience. The technical data provided have been obtained under normal laboratory conditions, and may therefore vary according to the environmental conditions in the place where the product is used. As the application conditions are beyond our control, the information provided here does not imply that the company accepts responsibility for any variations.