



ARGOTEC

Technical Mortar

REPAIRS



UNE-EN
1504-3

R3

DESCRIPTION

ARGOTEC REPAIRS is a single-component mortar with high mechanical strength and medium elasticity modulus, with offset shrinkage, for the structural repair of concrete parts, compliant with the standard UNE EN 1504-3 as a class R3 mortar.

APPLICATIONS

ARGOTEC REPAIRS is suitable for structural repairs to concrete parts, such as:

Pillars

Exterior walls

Floor edgings

Balconies and ceilings

Window frames, beams, lintels, etc.

All kinds of concrete structures for shaping.

Applicable for interiors and exteriors.

Applicable on vertical walls and horizontal surfaces.

For any application not cited on this technical data sheet, please consult our technical department.

PROPERTIES

High thixotropy and manageability. Large thickness possible in a single layer.

Easy to shape without using formwork.

High adherence to concrete.

High mechanical strength.

Medium elasticity modulus, facilitating repairs with minimal differential movements.

High resistance to cracking thanks to its formulation and minimal controlled shrinkage.

Highly weatherproof, thanks to its low capillary water absorption index and high impermeability.



BASE OF THE MATERIAL

Aggregate with selected particle size, special cements, polymers and synthetic fibres.

SUPPORT

Supports should be firm, clean and as rough as possible, free of dust, paint, oil, formwork remover, etc. On particularly absorbent supports epoxy joint primer should be used. Before use, prepare highly deteriorated supports by sandblasting or similar methods to achieve a surface with adequate tensile strength.

METHOD OF USE

1. Preparing the surface

The concrete surface should be free of dust, grease, formwork remover, oil, paint, etc. The minimum tensile strength should be 1 MPa.

Clean up any deteriorated concrete by mechanical means (e.g. sandblasting or water jet). After this treatment, the aggregate should be left bare.

2. Preparing the reinforcement

If the reinforcement has rusted, it should be deoxidised, either by sandblasting or by applying an oxide converter.

3. Bridging joint

The need for a bridging joint will largely depend on the concrete surface and application conditions.

When being applied manually or if the concrete surface is very smooth, it is advisable to use a bridging joint to assure adequate adherence.

4. Mixing

Prepare a bucket with approx. 4.2 L. of water and gradually add the contents of the sack of **ARGOTEC REPAIRS**.

Mix with a drill fitted with an M34 twin-disc stirrer at low speed (400 rpm) or a mechanical mixer for at least 3 minutes, until an even, lump-free mixture is obtained.

Leave to stand for 2–3 minutes and mix again for a few seconds.

5. Application

ARGOTEC REPAIRS can be applied by trowel or mechanical spraying.

Apply onto the lightly moistened support or onto the fresh bridging joint.

If no bridging joint is being used, the prepared surface should be wetted 2 hours beforehand, checking just before applying that it is still wet but with no pools of water.

Apply to the required thickness (5–50 mm) using a mortarboard or trowel. For greater thicknesses, use several layers or by reinforcing if a single layer is preferred.

6. Curing

For 24 hours following application, curing the mortar is essential in order to prevent cracks from appearing as moisture is lost through evaporation, as well as to assure the optimal properties of the product.



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CLEANING TOOLS

Remains of **ARGOTEC REPAIRS** can be cleaned off with water. Once the product has hardened, tools can only be cleaned mechanically.

PRECAUTIONS

Do not apply at extreme temperatures (below 5 °C or above 35 °C).

Do not add water to the product once it is no longer workable.

Do not add any sand, cement or any other materials that could affect the properties of the product.

YIELD

The approximate yield is 19 Kg of mixed mortar per m² and cm of thickness.

This yield is theoretical and should be determined for each specific job by means of representative tests carried out on site.

PRESENTATION

25 kg sacks (1000 kg pallet).

COLOUR

Grey, White.

STORAGE

Store the product in its original container, firmly closed, in a dry place protected from direct sunlight and moisture. If stored as indicated, **ARGOTEC REPAIRS** can be kept for up to 12 months after its date of manufacture.

HANDLING

When handling this product, take the standard precautions for handling cement products: do not eat, drink or smoke when working, protect your skin and rinse with water in case of contact. The product and its packaging should be disposed of in accordance with the relevant legislation and is the responsibility of the end user of the product.

REFERENCE AND CLASSIFICATION

Class-R3 mortar for structural-concrete repairs per standard UNE EN 1504-3

TECHNICAL DATA

Grain size (mm)	0/1.5
Mixing water approx. (%):	17
Applicable thicknesses (cm):	0.5-5
Workability time (mins):	<30
Chloride-ion content (%):	≤0.05



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Elasticity module (APA):	≥15
Capillary absorption ($\text{Kg/m}^2 \text{ h}^{0.5}$)	≤0.5
Direct tensile strength (N/mm^2):	≥1.5
Freeze/thaw thermal compatibility (N/mm^2):	≥1.5
Resistance to carbonation	Passes
Linear shrinkage after 28 days (mm/m):	≤0.20
Crushing strength (N/mm^2):	
After 24 hours (N/mm^2):	≥9
After 7 days (N/mm^2):	≥20
After 28 days (N/mm^2):	≥30