



## Fibre reinforced and waterproofed plastering

Fibre reinforced and waterproofed plastering for the structural reinforcement with a high mechanical resistance, formulated with selected aggregates, synthetic microfibers and additives such as to give it an excellent workability and high mechanical characteristics.



## Technical characteristics

DIAMANT CONSOLIDA 30 is classified according to european standard EN 1504-3 CC (repair cement-based hydraulic mortar) class R3.

DIAMANT CONSOLIDA 30 is classified according to european standard EN 998-1 as a GP general purposes mortar for plaster with indoor or outdoor use) category CSIV with extremely low water absorption (W2).

<b>Appearance</b>	Grey powder
<b>Particle size</b>	≤ 3 mm
<b>Mixing time</b>	> 2 h
<b>Compression strength</b>	≥ 30 N/mm <sup>2</sup> (R3)
<b>Flexural strength</b>	≥ 7,0 N/mm <sup>2</sup>
<b>Elastic modulus</b>	≥ 15000 N/mm <sup>2</sup>
<b>Adhesion to CONCRETE</b>	≥ 1,8 N/mm <sup>2</sup>
<b>Therm. Compatibility freeze-thaw</b>	≥ 1,5 N/mm <sup>2</sup>
<b>Capillary absorption</b>	≤ 0,5 kg·m <sup>-2</sup> ·h <sup>-0,5</sup>
<b>Content of chloride ion</b>	≤ 0,05%
<b>Reaction to fire</b>	Class A1
<b>Power consumption</b>	≈ 18 kg/m <sup>2</sup> per cm of thickness
<b>Paste water</b>	≈ 19% (≈ 4.5 l per bag 25 kg)
Data are expressed at 22±1°C with relative humidity at 50±5%. Lower temperatures extend the maturation time and curing; higher temperatures reduce the time of maturation and hardening.	

Conforming to Reg. 1907/2006 (Reach). XVII point 47

## Use

DIAMANT CONSOLIDA 30 is suitable for concrete repair, in those interventions in which projection of cement is necessary, for example in the recovery of tunnels, canals, swimming pools and tanks.

DIAMANT CONSOLIDA 30 is also used for the structural reinforcement of masonry and cement-based applications with high thickness, such as anchoring or rendering mortar, in the creation of armed plaster with high thickness suitable for heavy coatings.

## Shelf life

In order to maintain the characteristics of the product, keep the bags in covered dry place and on wood pallets. The effectiveness of the performance characteristics in the intact packaging 6 months.

## Application

Preparation of the supports:

- remove the deteriorated parts and those detaching from the support to reach the compact and rough substrate;
- clean the support by removing dust, rust, oil, grease, efflorescence, paint, etc.;
- if there are irregularities greater than 2 cm, you can delete them by applying the DIAMANT CONSOLIDA 30 at least 24-48 hours before the application of the plastering;
- clean the iron armour up to reach the white metal;
- Make corner protectors at the corners and vertical guide level using the same DIAMANT CONSOLIDA 30;
- if it is necessary to use the DIAMANT CONSOLIDATES 30 as a layer of reinforced plastering with welded wire mesh (or similar), this should be resting on the slab, placed at least 1 cm from the surface and anchored appropriately to it;
- moisten the substrate, and wait for the evaporation of the excessive water before applying the plastering.

Preparation of the paste - machine: adjust the flow meter until you get the desired consistency.

Preparation of the paste - hand or mixer:

- • in a case put some clean water in order to knead the amount of dust expected; continuously add dust;
- mix until you get the desired consistency;
- do not exceed the 4 minutes of mixing;
- make the paste rest for at least 10 minutes, mixing it before use.

DIAMANT CONSOLIDA 30 is applied in a first coat to completely cover the reinforcing net.

Apply the second coat after the drying of the first one (approx. 3-4 h) and work as a final step.

Wait for the complete seasoning of the product (approx. 1 week for every cm of thickness) before proceeding to the application of the subsequent layers.

If you are using DIAMANT CONSOLIDA 30 as a high-performance plaster, apply it in one or 2 coats, at a distance of 3-4 h from each other.

If you are using DIAMANT CONSOLIDA 30 as a rough coat, apply the product covering the entire surface, do not smooth and let it harden for 24-48 hours before application of subsequent layers.

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## Warnings

Use the product at temperatures between +5°C and +35°C.

Avoid applying the product in the presence of strong wind or in full sun.

Protect the product from frost, rain in the 48 hours following the application.

In the realization of the mixture, use clean water.

The minimum thickness for each coat is 1 cm. Maximum thickness for coat is 4 cm.

Do not add foreign materials to the mixture of DIAMANT CONSOLIDA 30.

Do not apply on gypsum surfaces, painted surfaces, smooth and non-absorbent substrates, cement supports and wood-concrete panels.

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## Item specifications

Supply and spray application of fibre-reinforced waterproofed plastering DIAMANT CONSOLIDA 30 for the reconstruction and restoration of structures in reinforced concrete, for the realization of high-performance plastering or rendering, formulated with selected aggregates, synthetic microfibers and such additives as to give it excellent workability and high mechanical characteristics. With CE marking according to EN 1504-3 (class R3) and according to the standard EN 998-1 class GP-CSIV-W2). The product must exert a resistance to compression after 28 days greater than 30 N/mm<sup>2</sup>, a flexural strength after 28 days greater than 7 N/mm<sup>2</sup> and an adhesion under direct traction greater than 1.5 N/mm<sup>2</sup>.

The product must be applied in thickness from 1 cm up to 4 cm in a single coat.

“The technical data in this document are indicative and related to the average values of production. SICILGESSO reserves the right to make, at any time, any changes and variations as it deems appropriate. Always refer to the latest updated version of the technical data sheet, available on the website [www.sicilgesso.it](http://www.sicilgesso.it)”