



INJECT RAPID

Fast-setting, shrinkage-controlled special mortar for medium and high-pressure injections



Product description

INJECT RAPID is a special premixed, single-component, pourable, controlled-shrinkage mortar designed specifically for the construction of micropiles, valved systems in general, and above all anchor bolts, where there is a need for short-curing stringing. Thanks to its specific formulation, INJECT RAPID is particularly suitable for the manufacture of Berliners.

Supply and storage

INJECT RAPID is supplied in bags on pallets or loose in a 22 m³ silo system.

Substrate preparation and application methods

INJECT RAPID is automatically mixed by the mixing and pumping unit (type SMP). The mortar produced in this way is conveyed by the pump (type SMP), suitably modified, with selectable flow rates and conveying pressure up to approx. 15 bar; these values are merely a reference as the data are subject to variations depending on the length of the casting pipe, its diameter and climatic conditions.

The use of INJECT RAPID for high-pressure injections requires a piston pump, which is not included in the equipment supplied with the silo.

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The UNI EN 14199 standard

INJECT RAPID complies with the recommendations of the “UNI EN 14199 Execution of special geotechnical works: Micropiles”:

- the absence of bleeding and/or segregation phenomena
- the good cohesiveness of the dough
- adequate fluidity
- the ability to self-compact
- workability
- the minimum cement content
- the mechanical resistance to compression

AICAP recommendations

INJECT RAPID complies with the AICAP recommendations - Anchorages in soils and rocks - concerning

- fluidity
- resistance
- exudation
- withdrawal

Peculiarities of mortar

The composition of INJECT RAPID makes the mix particularly homogeneous, sufficiently viscous, adequately fluid and suitable for injection at medium and high pressures.

Warnings

INJECT RAPID must be applied at a room temperature between 5°C and 30°C; in the case of low temperatures (5°C ÷ 10°C) it is however advisable to mix the material with lukewarm water. Vice versa, with high ambient temperatures, it is advisable to mix with cold water.

Do not mix INJECT RAPID with other substances.

Avoid large temperature changes during the setting phase. The product must be protected from frost and rapid drying.

The mixing water, for the correct functioning of the equipment, must be free of impurities and, for the quality of the mortar, must also comply with the reference standard.

The qualification of the mortar is obtained by the viscosity test and the density test of the mix; it is recommended to carry out these tests at least at the beginning of each casting session.

The proposed qualification of the mortar does not replace any mandatory design tests.

It is recommended that long storage periods in silos be avoided in order to prevent the loss of the cement binder's characteristics and the related reduction in the hydration process of the cement with a consequent reduction in the mechanical characteristics of the mortar.

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| TECHNICAL DATA | PERFORMANCE |
|---|--|
| Mixing water | approx. 37% |
| Maximum inert diameter DMAX | < 0.1 mm |
| Dough density | approx. 1920 kg/m ³ |
| Viscosity | 10"-30" |
| (Marsh cone nozzle 10 mm) | 10"-30" |
| Mechanical resistance to compression at 2 days | > 20 N/mm ² |
| Mechanical resistance to compression at 4 days | > 25 N/mm ² |
| Mechanical resistance to compression at 7 days | > 30 N/mm ² |
| Mechanical resistance to compression at 28 days | > 35 N/mm ² |
| Mechanical resistance to bending at 28 days | > 6 N/mm ² |
| Theoretical yield | approx. 1390 kg/m ³ |
| Plastic collection | absent under standard hygrometric conditions |
| Specific weight | approx. 1100 kg/m ³ det. in free fall |

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I dati riportati si riferiscono alle prove di Controllo Qualità in condizioni ambientali normalizzate. Applicazioni pratiche di cantiere a seconda delle condizioni di esercizio possono rilevare dati sensibilmente modificati, pertanto le informazioni presenti nella Scheda hanno valore puramente indicativo in quanto l'utilizzatore deve sempre verificarne l'idoneità nell'impiego del prodotto assumendosi la responsabilità derivante dall'uso. Fornaci Calce Grigolin S.p.A. si riserva di apportare modifiche tecniche di qualsiasi genere senza alcun preavviso.