



MAXREST®

NON-SHRINK, QUICK-SETTING STRUCTURAL REPAIR MORTAR FOR CONCRETE AND MASONRY



DESCRIPTION

MAXREST® is an one-component structural repair mortar, made of special cements, additives and selected aggregates, which provides a thixotropic product with quick-setting that does not shrink. It firmly adheres to the surface which it is applied on, and restores concrete to its original condition.

APPLICATION FIELDS

- For general repair and restoration work on structural concrete. Repairs honeycombs, cracks and fissures.
- Patching and protective covering of superficial reinforcing rods affected by corrosion.
- To repair lintels, ran, water tanks and to restore architectural concrete permanently exposed to climatic conditions.
- Sealing of construction joints previous to waterproofing works in tanks, swimmings pools, basements, etc.
- For restoration of lines and shapes of damaged pre-fabricated concrete elements.

ADVANTAGES

- Its quick-setting time, from 15 to 20 minutes, allows for an agile repair process.
- It forms part of the substrate and repairs are structurally sound, with properties comparable or higher than concrete.
- Very good thixotropy without slump or the need for using form work.
- It does not shrink, avoiding risk of cracks when sets.
- Odour-free and non-toxic, making it the ideal material to use in badly ventilated places, such as water tanks, shafts, sewers, etc.
- Does not contain any chloride.
- Only needs the addition of water for mixing.

APPLICATION INSTRUCTIONS

Surface preparation

Surface should be clean and free of dirt, grease and loose particles. Remove all damaged and unsound concrete to expose a structurally resistant substrate. Expose all reinforcement affected by rust. Remove concrete all around the bars for an efficient cleaning and to surround it with a minimum thickness of at least 1 cm of **MAXREST**[®]. Eliminate rust by metal brush, needle gun, sand or shot blasting, etc. Apply the protector and oxide converter **MAXREST**[®] **PASSIVE** (Technical Bulletin nº 12). After cleaning, wash the concrete with water. Before applying **MAXREST**[®], wet the surface but do not leave free-standing water.

Mixing

A 25 kg bag of **MAXREST**[®] is mixed with between 3,5 to 4,0 litres of clean water, depending on the ambient conditions and the consistency required,

either manually or mechanically by low speed drill (400 - 600 r.p.m). **MAXREST**[®] takes fifteen to twenty minutes to set, depending on the temperature. Mix only the amount of **MAXREST**[®] that can be applied within eight to ten minutes.

Application

For an optimum bonding, prepare a slurry mixing 5 parts of **MAXREST**[®] with 1 part of water, mixing well until achieving a homogeneous consistency without any lumps. Apply the slurry using a **MAXBRUSH** type brush on the surface to be repaired and on the reinforcement bars, filling all voids and pores, allowing 5 to 8 minutes before continuing the repair. While the slurry is still fresh, start placing **MAXREST**[®] with its consistency of repair mortar. Apply in successive layers between 2,5 and 3 cm, scratching the surface with the trowel to make the next layer adheres firmly. Between layers, wait 10 to 15 minutes depending on the temperature. If the different layers become warm, wet the surface with cold water.

Application conditions

Do not apply with temperatures below 5 °C or if lower temperatures are expected during the 24 hours following the repair. Do not apply on frozen or frosted surfaces.

Curing

For better curing once the job is finished cover with wet cloth to protect from high temperature and sun.

Cleaning

Clean all tools and equipments immediately with water after use. Once **MAXREST**[®] hardens only can be removed by mechanical methods.

CONSUMPTION

Estimated consumption of **MAXREST**[®] are approximately 1,67 kg/m² per mm thickness.

One kilogram of **MAXREST**[®] will fill approximately 0,6 litres.



Damp the surface



Apply the primer



Apply the mortar

PACKAGING

MAXREST® is supplied in 25 kilogram drum and bag, and 5 kilogram can.



STORAGE

Nine months in bags, twelve months in drums and cans, in their unopened original packaging, in a dry and covered place protected from damp and frost, with temperatures above 5 °C.

IMPORTANT INDICATIONS

- Do not use leftover mixed material to prepare a new batch.
- Do not add sand, aggregates or cement to increase volume.
- Do not use high speed mixers or which may cause violent mix, and do not mix for prolonged periods.

- Do not apply on painted or structurally weak surfaces.
- Do not apply in layers exceeding 3 cm thickness.
- Do not allow the layers to heat up; water continuously with cold water.
- Setting time is measured at 20 °C. Higher temperatures reduce the setting time and lower temperatures delay the setting time.
- With low temperatures keep the product in a warm place and use lukewarm water to accelerate the setting time.
- With hot temperatures keep the product in a cool place and use fresh clean water for the mix. Wet the different layers. Mix small batches of material and apply immediately.
- For further information consult our Technical Department.

SAFETY AND HEALTH

MAXREST® is non-toxic but as all cementitious product it is an abrasive compound. Rubber gloves and safety goggles must be used to mix and apply the mixture. In case of skin contact, wash affected areas with soap and water. In case of eye contact, rinse with clean water but do not rub. If irritation continues, seek medical attention.

Safety Data Sheet of MAXREST® is available by request.

Disposal of the product and empty packaging must be done according to national regulations by the final user.



Scratch the surface



Finish the edge



Final finish

TECHNICAL DATA

Appearance and colour	Grey powder
Apparent density in powder (kg/cm ³)	1,045 ± 0,05
Mixing water (% in weight / weight prod.)	15 ± 1
Pot life (minutes, 20 °C)	15
Apparent dry density (kg/cm ³)	1,98 ± 0,05
Adhesion on concrete (MPa)	1,8
Setting (minutes 20 °C) Beginning Final	20 25
Flexotraction strength (MPa) 7 days 28 days	5,0 7,7
Compressive strength (MPa) 7 days 28 days	29,0 45,5
Capilarity (c) (g /dm ² min ^{1/2})	1,24
Elasticity modulus (MPa)	21.000

GUARANTEE

The information contained in this leaflet is based on our experience and technical knowledge, obtained through laboratory testing and from bibliographic material. **DRIZORO®** reserves the right to introduce changes without prior price. Any use of this data beyond the purposes expressly specified in the leaflet will not be the Company's responsibility unless authorised by us. The data shown on consumptions, measurement and yields are for guidance only and based on our experience. These data are subject to variation due to the specific atmospheric and jobsite conditions so reasonable variations from the data may be experienced. In order to know the real data, a test on the jobsite must be done, and it will be carried out under the client responsibility. We shall not accept responsibility exceeding the value of the purchased product. For any other doubt, consult our Technical Department. This version of bulletin replaces the previous one.

**DRIZORO, S.A.**

C/ Primavera 50-52.
Parque Industrial Las Monjas
28850 TORREJÓN DE ARDOZ – MADRID (SPAIN)
Tel. 91 676 66 76 - 91 677 61 75 Fax. 91 675 78 13
e-mail: info@drizoro.com Web Site: drizoro.com

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