



MAXGRIP®

FAST-SETTING CEMENT-BASED FLUID MORTAR FOR ANCHORING

DESCRIPTION

MAXGRIP® is an one-component, quick-setting, shrinkage-compensated, fluid mortar formulated from special cements and selected additives and aggregates, which has been specially designed for use as rapid anchoring grout in placing and fixing of elements in horizontal concrete or masonry.

APPLICATION FIELDS

- Anchoring of foundation plates and construction elements.
- Anchoring of heavy machinery, small machines and motors.
- Fixing of safety rails, hand rails, balustrades, signs, posts, parking meters, park seats.
- Fixing of bolts, hooks, pulleys and fences.

ADVANTAGES

- Very fast-setting, in 15 minutes. Allows urgent putting into service of the anchored element.
- Develops very high and quick mechanical resistance, even superior than concrete.
- Very good adhesion on concrete surfaces, it becomes structural part of the substrate.
- Shrinkage-compensated, thus it does not lose contact with the surfaces where is confined.
- Contains no chlorides, sulphides or metal particles, non-corrosive for steel.
- Waterproof mortar.
- Easy to mix and apply. One-component, only water is required for mixing.

APPLICATION INSTRUCTIONS

Drilling the holes

Drill the holes with an electrical drill to the diameter and depth required. For general proposes, drill hole diameter should be about three times of the bolt diameter and the drill hole depth should be about five times of the bolt diameter.

To provide a good mechanical key, make a dovetail-shaped hole to which the material is applied, i.e. a diameter bigger in the bottom. When concrete is not sufficiently sound or doubtful strength, increase both the hole diameter and depth. In any case, drill holes in concrete should be large enough for the anchored element, i.e. head of bolt and their washers and the fluid mortar. Anchoring mortar should flow between the washer and the wall of the drill hole.

Surface preparation

Drill hole to be filled with the fluid mortar must be structurally sound, clean and free from grease, gypsum, loose concrete or any other material that could affect to adhesion. The cavity must be cleaned of loose particles and dust with blow pump, vacuum means, compressed air or water, starting from the bottom of the hole.

Before the application of **MAXGRIP®**, the surface must be dampened with clean water using a swab i.e. it must be saturated surface dry avoiding any free-standing water. Special attention should give to this matter when dealing with very absorbent substrates or exposed to the direct sunlight.

All steel and metal elements must be thoroughly cleaned and free of grease, rust and dust.

Mixing

MAXGRIP® sets very quickly, so mix only the amount of material that can be placed in the next five minutes. Mixing ratio is from 3,75 to 4,25 litres of clean water per 25 kg of **MAXGRIP®** (15 – 17 %). Mix manually with a

trowel or spatula in a small plastic bowl or other suitable container until obtaining a homogeneous lump free batter. At high temperatures or where is exposed to high winds, material will set very quickly so in order to slow down the setting time, cold water may be used. To shorten the setting time, use warm or hot water.

Placing

Place the anchor bolts with washers into the drill hole and pour a little of **MAXGRIP®** by gravity directly from the mixing container. Work the bolt up and down a few times to eliminate air bubbles. Finally, fill completely the balance of the drill hole by pouring **MAXGRIP®** in a continuous way. Slightly overfill the drill hole to avoid ponding of water.

Application conditions

Do not apply **MAXGRIP®** when ambient or application surface temperature is below 5 °C or if such temperatures are expected within the 8 hours after placing. Do not apply on frozen or frosted surfaces.

For applications during hot temperatures, low humidity and windy conditions, i.e. summer time, it is recommended to use iced or cold water for mixing, store **MAXGRIP®** in a cool place, cooling the area with cold water and saturate the surface. Do not add anti-freeze admixtures to mixing water.

Curing

MAXGRIP® sets in 15 minutes at 20 °C and nut can be placed after 60 to 90 minutes. Allow more curing time if the element to be anchored is heavy or it is going to be subjected to heavy loads. It could be advisable to keep immobilised the element or the anchor during the first few hours until anchoring mortar has achieved a suitable mechanical strength.

Cleaning

All tools and equipments must be cleaned immediately with water after use. Once the grout sets can only be removed by mechanical methods.

CONSUMPTION

The estimated consumption of **MAXGRIP®** is 2,0 kg/l volume to fill. A preliminary test on-site will determine the coverage exactly

IMPORTANT INDICATIONS

- Do not use more water for mixing than the ratio recommended.
- Do not use for structural concrete repair, levelling or floor repair. Use other more suitable **DRIZORO®** products for those applications.
- Do not mix **MAXGRIP®** with other compounds.
- Setting times are measured at 20 °C. Lower temperatures and higher relative humidity increase these figures.
- Do not retemper or extend placement after 10 minutes.
- For further information and other uses not specified in this Technical Bulletin, consult our Technical Department.

PACKAGING

MAXGRIP® is supplied in 25 kg drums and 5 kg metal cans and is available in standard grey colour.

STORAGE

Twelve months in its original unopened packaging. It must be stored in a dry and covered place protected from frost, at temperatures above 5°C.

SAFETY AND HEALTH

MAXGRIP® is an abrasive product so protective rubber gloves and safety goggles must be used to prepare and apply the mixture. In case of eye contact, rinse thoroughly with clean water, but do not rub. In case of skin contact, wash affected areas with soap and water. If irritation continues, seek medical attention.

For further information, Safety Data Sheet of **MAXGRIP®** is available by request.

Disposal of the product and its empty packaging must be made by the final user and according to official regulations.

TECHNICAL DATA

Characteristics of the product	
Appearance and colour	Grey powder
Application and curing conditions	
Mixing water (% by weight)	15-17
Setting time, at 20 °C (minutes)	15
Characteristics for the cured product	
Compressive strength (MPa)	
90 minutes	14,3
24 hours	29,2
7 days	44,4
28 days	55,1
Pull-out strength 22 mm (7/8") bolt, anchored at 20,3 cm (8") (MPa)	108
Consumption	
Approx. consumption (kg/l)	2,0

Recommended diameter and depth for drill hole and amount of **MAXGRIP®** for a mild steel bolt

Bolt diameter Ø (mm)	Drill hole diameter Ø (mm)	Drill hole depth (mm) R > 200 kg/m ²	MAXGRIP® weight (kg)	Hole depth (mm) R < 200 kg/m ²	MAXGRIP® weight (kg)
10	30	100	0,15	200	0,30
15	50	200	0,75	300	1,00
25	80	200	2,25	300	3,35

(R: Compression strength for concrete wherein anchorage is carried out)

GUARANTEE

The information contained in this leaflet is based on our experience and technical knowledge, obtained through laboratory testing and from bibliographic material. **DRIZORO®, S.A.** reserves the right to introduce changes without prior notice. Any use of this data beyond the purposes expressly specified in the leaflet will not be the Company's responsibility unless authorised by us. We shall not accept responsibility exceeding the value of the purchased product. 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.



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