

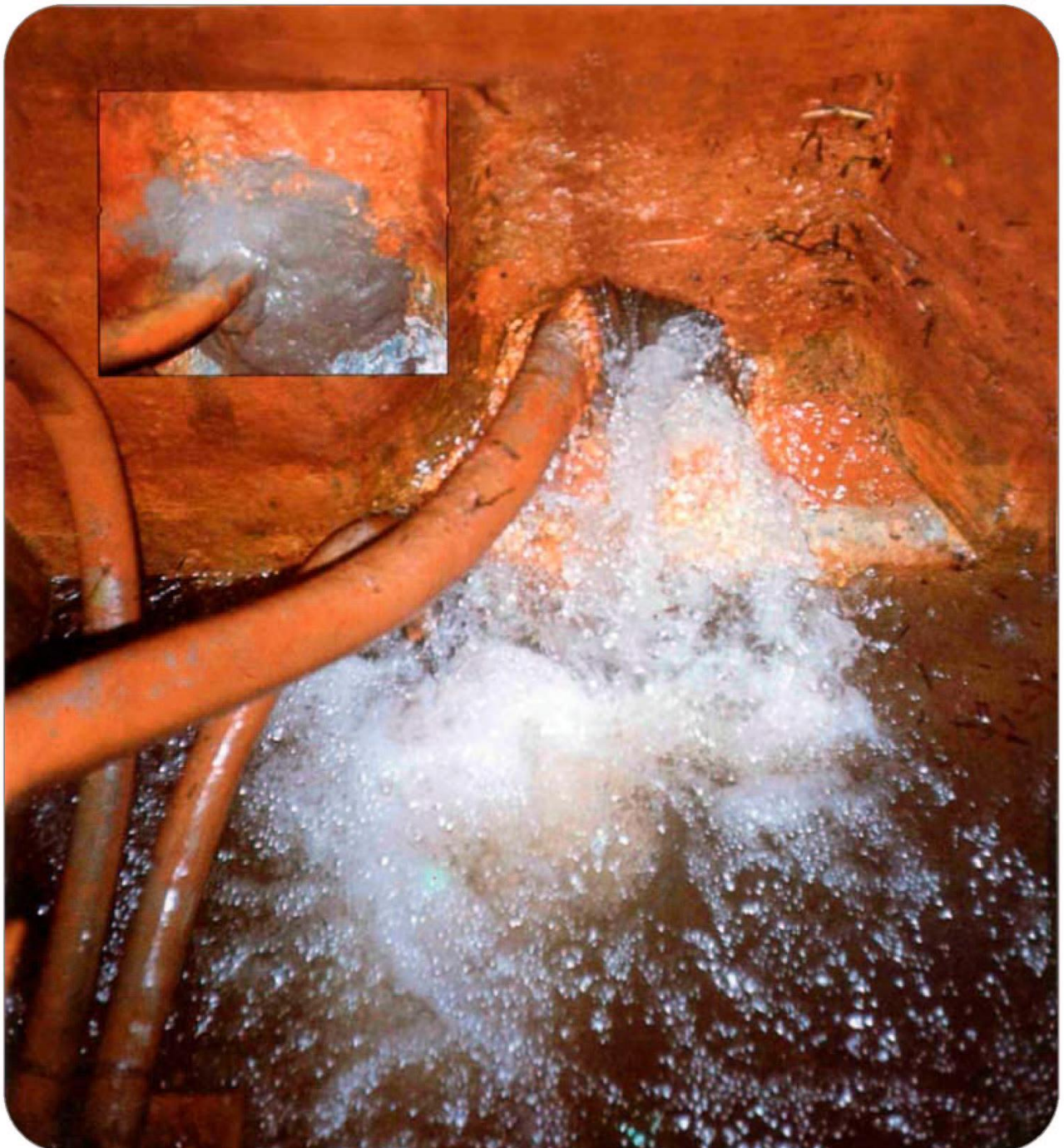


MAXPLUG®



ENVIRONMENTAL PRODUCT DECLARATION

QUICK-SETTING HYDRAULIC MORTAR FOR STOPPING LEAKS UNDER PRESSURE



DESCRIPTION

MAXPLUG® is a quick-setting cement-based mortar that instantly stops running water from cracks, fissures, holes or other openings in concrete and masonry. It is non-shrink and sets within three to five minutes depending on the temperature. Once **MAXPLUG®** sets, it adheres perfectly to the substrate. It only requires water for mixing.

APPLICATION FIELDS

- Sealing of leaks in concrete surfaces, solid masonry and other sound substrates wherein water flows through cracks and holes.
- Stopping running water in basements, tunnels, foundations and sewers under hydrostatic pressure.
- Emergency repairs on concrete water pipes. For broken concrete pipes, **MAXPLUG®** will even work when the concrete pipes are under hydrostatic pressure.
- Sealing of concave corners and working joints, filling the grooves with **MAXPLUG®** in the shape of a cove.
- Anchoring of bolts and other accessories that require immediate use.
- Emergency plugging of gas leaks.
- It is a suitable maintenance material for homes and industry.

ADVANTAGES

- Its quick setting-time from 3 to 5 minutes can be controlled, either sped up or slowed down, by adding warm or cold water. Setting may even be instantaneous by adding hot water during warm weather.
- Does not shrink or become weak due to its exothermic reaction.
- Excellent adhesion to the substrate, no bonding bridges required.
- **MAXPLUG®** increases in volume, giving a permanent seal in areas where there is flowing water.
- Its mechanical properties are similar or higher than concrete.
- Resistant to aggressive environments: marine environments, atmospheric pollution, and freeze-thaw cycles.
- It sets even underwater.
- Non-toxic. It can be used in contact with drinking water.
- Does not contain chlorides or other corrosive compounds.
- UV resistant.

- Easy to use. Only requires water for mixing.
- Environmentally friendly: cement-based and solvent-free.

APPLICATION INSTRUCTIONS

Surface Preparation

The substrate must be solid, firm, rough and sound, with no poorly adhered parts, surface grouting and as uniform as possible. It must also be clean and free of paint, efflorescence, loose particles, grease, release oils, dust, plaster, etc., or other substances that could affect the adhesion of the product.

Cracks or fissures must be opened to a minimum depth of 4 cm and a width from 3 to 4 cm. In order to provide a good mechanical key, make a square-shaped groove; preferably dovetail to the surface to which the material is applied. Avoid a "V" shape, as shown in drawings.

Clean the surface until it is free of any loose or unsound materials or surface contaminants. If there is no water present at the time of application, dampen the surface before applying **MAXPLUG®**.

Mixing

Mix only the amounts of **MAXPLUG®** that it can be applied within 3-5 minutes under normal conditions. If flowing water is present, only the amount of material that can be applied by hand should be mixed.

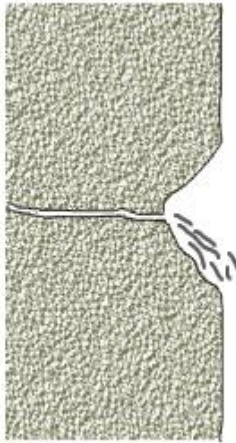
In order to mix the mortar, use a plastic container, fill it with the necessary amount of **MAXPLUG®**, and add clean water slowly. Mix all components slowly with a trowel until the consistency of cement mortar is achieved. Depending on weather conditions, one kg of **MAXPLUG®** requires about 0,28 l of water.

Do not apply the material by sprinkling, pouring or without providing any manual support to keep it confined until it has completely set. Wait until the mortar has acquired the appropriate workability and begins to harden, then press it firmly and without friction into the crack or hole to be sealed, waiting about 2 minutes until the mortar sets or heats up. Finally, remove any excess from the surface and level it with the substrate using a trowel or float.

Application

Sealing leaks in cracks or joints:

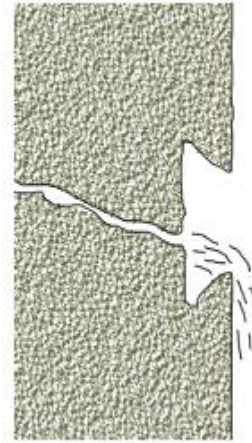
Prepare the surface removing the loose or unsound concrete from the crack or joint and cutting to a depth of 5 cm. **MAXPLUG®** should be



WRONG



RIGHT



OPTIMUM

applied in small amounts that can be applied by hand. Do not pour the material in place; always apply by hand.

Once **MAXPLUG®** is mixed, form the mixture into the shape of a plug and hold it in your hand until it becomes warm and then, press **MAXPLUG®** firmly into the crack or joint but do not twist or overwork. Maintain pressure with the hand until it sets and finally remove any excess material with a trowel.

In large openings with high pressure such as tunnels and basements, begin the application at the top of the crack, where water pressure is lower, and proceed with the surrounding area until the crack is finished, allowing **MAXPLUG®** to harden enough between the successive applications.

Sealing joints between concrete slab and wall:

This is a common situation in basements, elevator shafts, swimming pools and reservoirs. Along the concave corners at least a 3 x 3 cm groove must be opened and filled with **MAXPLUG®** in the shape of a waterproofing cove.

Expansion joints:

In order to stop running water from these joints, perform a groove along the joint and refill it with **MAXPLUG®** to stop the leakages. After **MAXPLUG®** hardens, cut and define the new joint,

sealing then with a flexible material such as **MAXFLEX®** type sealants.

Anchoring. To anchor steel bolts and other metal fixtures, **MAXPLUG®** is suitable.

Application Conditions

The optimum setting time corresponds with a temperature range from 18-20°C. **MAXPLUG®** will set in about 3 to 5 min, depending on water and ambient temperature and relative humidity.

Hot weather application: At high temperatures (> 30°C) or where is exposed to winds, **MAXPLUG®** will set very quickly. In order to slow down the setting time, cold water may be used. This procedure allows apply the material within 30-60 seconds after mixing.

In extreme cases, product should be kept in the shade and ice should be added to the mixing water in order to slow down the setting time.

Cold weather application: In order to shorten the setting time, warm or hot water may be used.





Curing

Avoid quick drying of **MAXPLUG®** by keeping it moist for at least 30 minutes after application, spraying it with water without washing it off. Do not apply curing agents. **MAXPLUG®** can be coated with waterproofing mortars from the **MAXSEAL®** range 30 minutes (20°C and 50 % RH) after application. Lower temperatures and/or higher RH values will prolong the curing time.

Cleaning

Before **MAXPLUG®** sets, all tools and equipment should be cleaned immediately with water. Once it hardens, product can only be removed by mechanical means.

CONSUMPTION

One kg of **MAXPLUG®** fills about 0,615-0,620 l, depending on the amount of mixing water (approximately 1,62 kg/l).

Consumption may vary depending on the characteristics of the substrate. Test on site to determine the exact value.

IMPORTANT INDICATIONS

- Do not mix the product with other materials or hardened product as the mixture characteristics may be modified.
- Use the recommended amounts of mixing water.
- Always use clean and dry tools to take **MAXPLUG®** from the packaging.
- En presencia de aguas o terrenos que contengan sulfatos, agua de mar o aguas residuales utilice la versión **MAXPLUG® ANTISULFAT**.
- For further information, consult our Technical Department.

PACKAGING

MAXPLUG® is supplied in 25 kg drums and 5 kg cans. Available in standard grey colour.



STORAGE

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

SAFETY AND HEALTH

MAXPLUG® is non-toxic, but it is an abrasive product, so protective rubber gloves and safety goggles must be used to prepare and apply it. 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 **MAXPLUG®** 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

Product characteristics		
CE marking, EN 998-1		
Description: Industrial mortar for rendering and plastering for general use. GP		
Intended uses: Industrial mortar for general use.		
General appearance and colour	Grey powder	
Maximum aggregate size, (mm)	< 0,8	
Mixing water, (% by weight)	28	
Application and curing conditions		
Minimum application temperature for substrate and ambient, (°C)	> 5	
Final setting time at 20°C & 50 % R.H., (min)	3-5	
Curing time for coating at 20°C & 50 % R.H., (min)	30	
Cured product characteristics		
Mechanical strengths, (MPa)	Flexural	Compressive
- 30 minutes	1,2	3,8
- 3 days	3,7	22,5
- 7 days	5,7	36,2
- 28 days	5,2	40,7
Consumption*		
Consumption per application, (kg/l)	1,62	

* These figures are for guidance only and may vary depending on conditions for substrate, and application method. Perform a preliminary test on-site to ascertain the total consumption exactly under jobsite conditions.

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.U.** 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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