

UNILIT B-FLUID 0-1-2-3 injection grout

OUTLINE SPECIFICATION masonry walls

PRODUCT DESCRIPTION

UNILIT B-FLUID 0, 1, 2 and 3 are traditional, dry premixed mineral injection grouts based on natural hydraulic lime as the binder and appropriate well-graded aggregates.

UNILIT B-FLUID 0, 1, 2 and 3 are characterised by a slow but strong bonding, a high plasticity, a low content of soluble salts and an excellent water vapour permeability. These natural hydraulic lime mortars are inherently stable and designed to reduce problems of micro cracks along with premature drying out.

The natural hydraulic lime binder, used to prepare the preblend, conforms to the European Standard EN 495-1 for building limes. The mortars **UNILIT B-FLUID 0, 1, 2 and 3** conform to the European Standard UNI EN 998-1.

APPLICATION AREA

UNILIT B-FLUID 0, 1, 2 and 3, differing in maximum grain size, are applied for the injection of holes, cracks, fissures, etc. in order to consolidate and strengthen the masonry structure. The choice of the injection grout depends upon the volumes to be injected. **UNILIT B-FLUID 3** will apply perfectly for the filling of larger holes, for example within the rubble core of a multiple-leaf wall consisting primarily of earth, clay, stone and other materials, while **UNILIT B-FLUID 0** will rather be applied for the filling of smaller cavities and cracks. Successive injections with gradually finer grouts can help to achieve the desired result. In the case of severe cracking, the cracks can be tied together again with rustproof metal, inox or glassfiber bars. The bar ($\varnothing 20$ mm) is inserted in a bore hole ($\varnothing 40$ to 50 mm) crossing the crack and anchored in place with **UNILIT B-FLUID 2**.

Thanks to the intrinsic properties of natural hydraulic lime, practically all known problems related to salt damage and lime bloom can be excluded, providing that excessive damp and/or salt problems are not prevalent.

TECHNICAL DATA

<u>Granular sizing</u>	
UNILIT B-FLUID 3	max. 3.0 mm
UNILIT B-FLUID 2	max. 1.4 mm
UNILIT B-FLUID 1	max. 0.8 mm
UNILIT B-FLUID 0	max. 0.3 mm
Bulk density	ca. 1600 kg/m ³
<u>Compressive strength</u>	
after 7 days	ca. 3.5 N/mm ²
after 28 days	ca. 9.0 N/mm ²
Setting time	> 120 minutes
<u>pH</u>	
fresh mortar paste	> 10.5
hardened mortar	~ 7
Fire resistance classification (EN 13501)	A1
<u>Proportion water/preblend</u>	
UNILIT B-FLUID 3	ca. 140 g/kg
UNILIT B-FLUID 2	ca. 180 g/kg
UNILIT B-FLUID 1	ca. 180 g/kg
UNILIT B-FLUID 0	250 - 300 g/kg
Mixing time	5 to 8 minutes
<u>Packing</u>	
UNILIT B-FLUID 1-2-3	powder in bags of 30 kg
UNILIT B-FLUID 0	powder in bags of 25 kg
Colour	beige

APPLICATION

A series of injection holes is spread over the injection area following a vertically staggered scheme. The distance in between neighbouring injection holes and their diameter depend upon the structure to be injected, the injection grout as well as the working pressure. After drilling, the injection holes are rinsed with demineralised or distilled water.

The mortar is mixed with clean water with a slow speed electric paddle for a period of 5 to 8 minutes. A creamy workable mortar is obtained, which has approximately 2 hours of open time.

The grout is injected either manually or by mechanical means. The exact working pressure, with an absolute maximum of 2 bar, depends upon the strength of the substrate and should, where necessary, be adapted during the injection process. The injection is recommended to proceed from the lowest point upwards. The injection is stopped whenever the grout appears from any of the neighbouring openings. A drying period of 1 to 2 days must be respected.

The mortars must not be applied at temperatures below +5°C nor when a risk of frost exists. They should never be applied on to a frozen surface or in the case of thick fog. In hot, windy and dry conditions measures should be taken to prevent accelerated drying out of the freshly applied mortars. Applied mortars must be protected from frost and direct sunlight for 48 to 72 hours after their application.

REMARKS

In case of doubt regarding the substrate (e.g. treatment with an impregnating product such as silicones or comparable), consult our technical service department.

The maximum storage time is 6 months, if stored in the original, hermetically closed packing in a suitable environment. The material must be stored dry and frost free above ground. Protect the material from heat sources.

This sheet cancel and replace all previous sheets.
Our advice and information are given in good faith and depending on the latest developments of our products. We guarantee the consistent quality of our products, but do not accept any liability concerning their application. In any case, we do recommend to consider the type of substrate and the climatic conditions before applying our products or to apply a test surface in order to analyse the suitability of the product for the given substrate.