UNILIT C (TD 13 C)
concrete reinforcement mortar

OUTLINE SPECIFICATION
structural walls and floors

PRODUCT DESCRIPTION

UNILIT C is a traditional, dry premixed mineral mortar based on natural hydraulic lime as binder and appropriate well-graded aggregates.
UNILIT C is characterised by a slow but strong bonding, a high plasticity, a low content of soluble salts and an excellent water vapour permeability. This natural hydraulic lime mortar is 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 mortar **UNILIT C** conforms to the European Standard UNI EN 998-1.

APPLICATION AREA

UNILIT C is indicated for :
- stabilization and securing of solid brick or stone walls who is structurally precarious
- restauration or realization of curbs in brick, reinforced with steel grid, fiberglass, carbon fiber or basalt
- supports of wooden beams
- entrapment or filling of brick or stone masonry
- fastening of chains, reinforcing bars, tie rods, etc. in metal, glass fiber, carbon etc.
- realization of concrete with addition of gravel in average dosage of around 15% for 5-8 mm and around 30% for 5-36 mm (according to the Füller curve).

TECHNICAL DATA

Granular sizing	max. 4 mm
Bulk density	1800-1900 kg/m³
Adhesive strength (EN 1015-12)	> 0.5 N/mm²
Compressive strength (EN 1015-11) used as rough coat :	class IV CS (≥ 6 N/mm²)
Compressive strength (EN 1015-11) used as bedding mortar:	class M15 (≥ 15 N/mm²)
Tensile adhesion (EN 1015 12)	> 0,5 N/mm²
Shear adhesion (EN 1052/3)	> 0,7 N/mm²
Compressive modulus of elasticity (UNI 6556)	ca. 17000 N/mm²
Vapour diffusion resistance (μ)	15
Pull-out strength steel bar	> 3 N/mm²
pH	> 10.5
Fire resistance classification (EN 13501)	A1
Proportion water/preblend	0.15 l/kg
Mixing time	max. 3 minutes
Consumption 4 bags + chippings 5-8mm 20 kg + 50 kg gravel 10-20mm + 20-25 l water = 90 l of concrete	
Packing	powder in bags of 30 kg
Colour	beige

APPLICATION

Prior to application, the substrate must be cleaned and freed of all traces of oil and grease. The substrate benefits from being slightly dampened.
Saturation of the substrate is not recommended, as this will influence negatively impact upon the bond of the hydraulic lime mortar to the substrate as well as the aesthetic appearence.
Once the substrate is ready, the grid or other the types of reinforcement are applied following the structural design.
The mortar is applied with full coverage of the grid (min. 10mm), or fully incorporating the element of reinforcement, taking care to fill all the spaces between the elements forming the masonry. Do not prop up when used as a first coat consolidating. Consider, depending on the humidity of the substrate, to treat the grid with appropriate protective and/or anti-rust or use grids or reinforcing elements in stainless steel or an organic material (glass fiber, carbon, etc.).

The mortar is mixed with clean water at a ratio of ca. 4,5 litres of water to a bag of 30 kg ready mixed natural hydraulic lime powder. The mortar is mixed with a slow speed electric paddle for a period of no longer than 3 minutes. A creamy workable mortar is obtained, which has approximately 2 hours of open time.

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.

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