

# UNILIT FEN XA

## hydraulic lime binder

### PRODUCT DESCRIPTION

**UNILIT FEN XA** is a natural hydraulic lime, which, when gauged with the correct volume of appropriate well-graded aggregates and natural pigments, can realise a highly qualitative multipurpose mortar.

**UNILIT FEN XA** is characterised by a low content of soluble salts and a slow but strong bonding. It is inherently stable and designed to reduce problems of micro cracks along with premature drying out. As a binder it gives any lime mortar a high degree of plasticity.

**UNILIT FEN XA** is conform to the European Standard EN 459-1, NHL 5.

### APPLICATION AREA

**UNILIT FEN XA** can - without almost any restriction - be applied as a mortar, when gauged with the correct volume and appropriate quality of sand and water, for a diversity of applications both in new construction, renovation as well as restauration; amongst others for both traditional as well as modern masonry constructions, (re)pointing, base coats and finishes for both plasters and renders, etc.

### PREPARATION

**UNILIT FEN XA** is mixed with a well-graded, pure and clean aggregate, at an equivalent rate of 380 to 450 kg of binder per m<sup>3</sup> of sand; an average of 1 volume part of binder for 3 volume parts of sand.

The use of sand with an optimum grain size distribution is of key importance. Studies show that the best results are obtained with sand with a grain size distribution according to the Füllercurves for the aggregate balance.

No addition of clinker, cements or any other synthetic additives are permitted, nor from any additive from the kind of a binding retarder, antifreeze and/or water reducer.

### 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 appearance.

The prepared mortar blend is mixed with clean water at a ratio of 4 to 5 litres of water to 25 kg of prepared mortar blend. Mixing is undertaken 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 mortar is applied either manually or by mechanical means following the appropriate method according to the application. 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.

### TECHNICAL DATA

#### Chemical composition

CaO 62% - MgO 1% - Al<sub>2</sub>O<sub>3</sub> 5% - K<sub>2</sub>O 0.7%  
Na<sub>2</sub>O 0.3% - Fe<sub>2</sub>O<sub>3</sub> 3.5% - SiO<sub>2</sub> 21%

#### Maximum granular sizing

0 to 5 mm 1 mm  
5 to 10 mm 2 mm  
10 to 30 mm 4 mm

Fineness (residu < 90 µm) < 5%

Bulk density ca. 1100 kg/m<sup>3</sup>

Compressive strength after 7 days (EN 459-2)

$f_c \geq 2 \text{ N/mm}^2$

Compressive strength after 28 days (EN 459-2)

$5 \text{ N/mm}^2 \leq f_c \leq 15 \text{ N/mm}^2$

Soundness < 1 mm

Available lime 4 - 5%

pH

fresh mortar paste > 10.5

hardened mortar ~ 7

Fire resistance classification (EN 13501) A1

Proportion water/binder 0.18 l/kg

Mixing time 5 to 8 minutes

Packing powder in bags of 25 kg

Colour beige

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.