

# UNILIT 20 (VOLCALITE) insulating mortar

## OUTLINE SPECIFICATION

plastering  
rendering

## PRODUCT DESCRIPTION

**UNILIT 20** is a traditional, dry premixed mineral insulating mortar based on natural hydraulic lime as the binder and appropriate well-graded aggregates. The expanded perlite aggregate ensures a lightweight mortar with high thermal resistance and mechanical strength.

**UNILIT 20** is characterised by a slow but strong bonding, a high plasticity, a low content of soluble salts and an excellent water vapour permeability. The 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, NHL 5 for building limes. The mortar **UNILIT 20** conforms to the European Standard UNI EN 998-1.

## APPLICATION AREA

**UNILIT 20** is applied wherever thermal insulation or the elimination of cold bridging and/or interstitial condensation is desired. The good thermal insulation value of the insulating mortar **UNILIT 20** substantially enlarges the thermal insulation of the external wall and contributes as such to a displacement of the dew point, enabling interstitial condensations problems to be resolved. An overall application of **UNILIT 20** to the external surface ensures the elimination of cold bridging and damage to the structure by thermal shock.

**UNILIT 20** can perfectly be applied in new construction, renovation as well as restoration.

## 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 mortar is mixed with clean water at a ratio of 9 to 10 litres of water to a bag of 13 kg ready mixed natural hydraulic lime powder. Mixing is undertaken with a slow speed electric paddle for a period of 3 to 5 minutes. A creamy workable mortar is obtained, which has approximately 6 hours of open time.

The insulating mortar is applied either manually or by mechanical means, using traditional spraying equipment, at the required thickness. Layers exceeding 30 mm in thickness are applied in subsequent passes of maximum 30 mm, a waiting period of minimum 7 hours must be respected before applying another layer of **UNILIT 20**. After a minimum drying period of 1 week (3 weeks in the winter) the finishing layer **UNILIT 15P1**, **UNILIT 15P2** or **UNILIT 40** has to be applied to the insulating mortar.

The insulating mortar **UNILIT 20** may not come into contact with surfaces below ground level. Basements and other places susceptible to rising damp must be treated with the stabilising mortar **UNILIT 30**. The use of stainless brick mesh is recommended where there is a likelihood of structural movement.

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

Bulk density	ca. 350 kg/m <sup>3</sup>
Vapour diffusion resistance ( $\mu$ )	4
Coefficient of thermal conductivity ( $\lambda$ )	0.066 W/mK
pH	
fresh mortar paste	> 10.5
hardened mortar	~ 7
Fire resistance classification (EN 13501)	A1
Proportion water/preblend	0.70 l/kg
Mixing time	3 to 5 minutes
Consumption	3.5 - 5 kg/m <sup>2</sup> /cm
Maximum layer thickness	30 mm
Packing	powder in bags of 13 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.