

ARMOLIME FU

BREATHABLE CEMENT MORTAR WITH SUPERIOR STRENGTH FOR POINTING AND RENOVATING OLD MASONRY

Ideal for renovating and sealing the courses of masonry units, even exposed



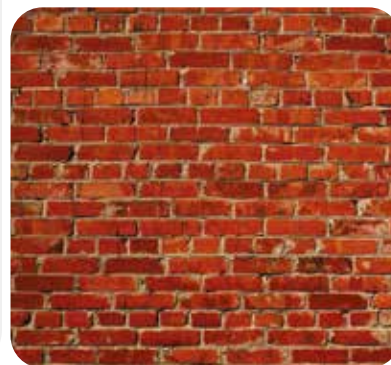
ARMOLIME FU is a thixotropic microfibre-reinforced cement mortar enriched with polymers and additives developed to flush point the courses of brick walls. **ARMOLIME FU** is non-absorbent and permeable to water vapour; it has a low modulus of elasticity and prevents proliferation of moulds and fungi.

ADVANTAGES

ARMOLIME FU is a breathable cement mortar for restoring and sealing the courses of masonry walls, **classified as masonry mortar (type M 20)** pursuant to **UNI EN 998-2**.

The product has the following characteristics:

- ✓ **Excellent mechanical properties**, specially developed to adapt to the structural and execution needs of masonry structures.
- ✓ **High adhesive** pull-off and shear **strength** which makes it ideal for pointing and renovating masonry walls, even exposed.
- ✓ **ARMOLIME FU prevents efflorescence and does not contribute to brickwork deterioration** caused by the chemical-physical consequences of salt crystallisation.
- ✓ It features a **low capillary water absorption** which prevents water ingress in brickwork, and at the same time **high water-vapour permeability** which **ensures normal breathability of masonry**.
- ✓ **ARMOLIME FU has a soft, plastic consistency; it is extremely versatile and easy to apply** by trowel.
- ✓ **ARMOLIME FU is non-combustible and does not produce smoke (Euroclass A1)**.



USES

ARMOLIME FU is particularly suited to the following applications:

- ✓ repointing courses of bed joints during repair of brick or natural stone walls of older buildings;
- ✓ repairing lesions and restoring wall continuity by means of local rebuilding ("scuci-cuci" or "strengthening by substitution" technique);
- ✓ sealing grout lines on walls of brick, concrete, exposed stone, etc.
- ✓ levelling surfaces with thicknesses of up to 2 cm per coat;
- ✓ filling and repairing surface cracks.

SUBSTRATE PREPARATION

SUBSTRATE CLEANING

- ▶ **The surface must be clean, cohesive and not flaking. Remove any loose or poorly adherent parts** from the area to be treated and **clean thoroughly by low pressure water blasting so as to remove efflorescence and soluble salts**. In case of deep cleaning and renovation work, clean the substrate by mechanical or manual chipping.
- ▶ **Remove the existing bedding mortar**, if severely damaged or weak.
- ▶ In the presence of **mechanically weak substrates** apply the breathable surface reinforcement agent ARMOSTONE (see technical data sheet).

SATURATION

- ▶ **Wet the surface with water until saturation is achieved**. This procedure prevents the substrate from absorbing the water of the mix, which may lead to cracking and reduce the bond strength of the mortar. This operation also makes it possible to remove any residues caused by the roughening of the concrete sub-base. Excess water must evaporate completely before starting to work. **The product shall be applied to a damp, but not wet surface**.

APPLICATION

MORTAR PREPARATION

Mix **ARMOLIME FU** with 6-7 litres of water per bag, equal to 24-28% in weight of the powder. Gradually pour **ARMOLIME FU** into the mixer containing approx. 90% of the mixing water and mix at low speed for about 3 minutes. Add the remaining water and mix for 2-3 minutes. The use of a vertical or horizontal shaft mixer is recommended. In case of a small mix, you can use a drill fitted with helix mixer. The mix must be homogeneous and lump-free. Do not mix manually, as this would not guarantee an even distribution of the mortar components.

MORTAR APPLICATION

ARMOLIME FU shall be applied manually by trowel.

MASONRY POINTING: apply **ARMOLIME TA** into the masonry grout lines, pressing it to promote adhesion. Remove any excess product immediately. Remove any residues from the surface of the bricks. Exposed grouting should be sponged with a damp sponge or a broomcorn brush.

EXPOSED MASONRY: create the laying bed, then place the building block in the desired position. Make sure the bricks (or ashlar) are properly aligned. Remove any excess mortar with a trowel, then smooth it out.

MORTAR FINISHING

Finishing with float is always necessary not only to smooth the surface out, but also to prevent plastic shrinkage cracks. To this purpose, it is recommended to use **PROBETON CURING N** as final curing membrane, especially in case of sun radiation and windy weather.

ARMOLIME FU can be mixed with local aggregates (1÷ 4 mm) to obtain a mortar which is as similar to the original one as possible (max 20% in weight).

PACKAGING AND STORAGE

ARMOLIME FU is packed in 25 kg bags.

If properly stored in a sheltered, dry place in its original container, the product maintains its properties for 12 months.



PRECAUTIONS

- ▶ Mortar can vary slightly in colour from batch to batch or depending on substrate absorption and atmospheric conditions during application.
- ▶ Working temperature +5°C to +35°C.
- ▶ Do not apply on frozen substrates or on substrates that are thawing or if there is a risk of frost in the following 24 hours.
- ▶ Do not use damaged or open bags.
- ▶ Do not apply in case of high sun radiation.
- ▶ Do not add lime, cement or other binders and/or admixtures to the product.
- ▶ Do not add more water than specified.
- ▶ Do not use the product if it has already started to harden.
- ▶ Do not add water to make the product workable when it is hardening.

PRODUCT CHARACTERISTICS

APPEARANCE	powder
COLOUR	grey - beige
MAXIMUM AGGREGATE SIZE - EN 1015-1	0.7 mm
APPARENT BULK DENSITY	1380 kg/m ³
CHLORIDE CONTENT - EN 1015-17	< 0.1%

APPLICATION SPECIFICATIONS

DENSITY OF FRESH MORTAR	1850 kg/m ³
MIXING WATER	6-7 l per 25kg bag (24-28%)
MORTAR CONSISTENCE - UNI EN 1015-3	160-180 mm
APPLICATION TEMPERATURE	+5 °C to +35 °C
WORKABLE LIFE OF FRESH MORTAR - EN 1015-9	approx. 40 minutes
APPLICATION THICKNESS	minimum 0.5 cm /maximum 2 cm per coat
CONSUMPTION	15 kg/m ² per cm of thickness

Times vary depending on substrate temperature and ambient temperature and humidity.

The values given in the table are indicative and calculated at a temperature of +20 °C and relative humidity of 65%.

PERFORMANCE CHARACTERISTICS MASONRY MORTAR WITH GUARANTEED PERFORMANCE FOR GENERAL PURPOSE (G) FOR EXTERNAL USE IN ELEMENTS SUBJECT TO STRUCTURAL REQUIREMENTS

PERFORMANCE CHARACTERISTICS	TEST METHOD	REQUIREMENTS ACCORDING TO EN 998-2	PRODUCT PERFORMANCE (water 22%)
COMPRESSIVE STRENGTH at 28 days	EN 1015-11	Classes from M1 to Md	Class M20 (> 20 MPa)
INITIAL SHEAR STRENGTH	EN 998-2	tabulated value	0.15 N/mm ²
WATER VAPOUR PERMEABILITY COEFFICIENT	EN 1015-19	tabulated value	35 μ
CAPILLARY WATER ABSORPTION	EN 1015-18	declared value	0.2 kg/m ² h ^{-0.5}
THERMAL CONDUCTIVITY	EN 1745	tabulated value	(λ _{10,dry}) 0.80 W/mK
REACTION TO FIRE	EN 13501-1	Euroclass	A1
ADHESIVE STRENGTH ON SUPPORT	EN 1015-12	not required	1 MPa (fracture at the interface between mortar and substrate)
MODULUS OF ELASTICITY IN COMPRESSION	EN 13412	not required	< 15000 MPa

Legal notes - SLCMP version of 01.03.2017

Draco Italiana s.p.a. has adopted the parameters indicated in this data sheet and the related standards for the calculation of the values and technical data contained herein.

Customers shall verify that this data sheet and the values indicated herein apply to their product batch and have not been superseded by later editions. If in doubt, verify that the sheet corresponds to the one available on the website www.draco-edilizia.it at the time the sales contract was executed and/or by previously contacting the Technical Department.

Any suggestions on the use of the Products provided by our personnel either orally or in writing upon the Customer's request do not constitute additional obligations to the purchase contract and do not imply a contractual obligation for the company. They are based on our experience and limited to the current state of practical and/or scientific knowledge. They are not binding for the client or for the installer. It is the Customer's responsibility to test our products and verify they are suitable for the type of application and use envisaged.