



COLMEF[®]
BUILDING BETTER

Neofil F 50 Plus

MINERAL ADHESIVE WITH IMPROVED ADHESION, NO VERTICAL SLIP AND EXTENDED OPEN TIME, HIGH WORKABILITY, ACCELERATED HARDENING AND FINE GRANULOMETRY. SUITABLE FOR PROFESSIONAL WALL AND FLOOR LAYING OF CERAMIC TILES, MOSAICS AND NATURAL STONES. FOR INTERIORS AND EXTERIORS.



TECHNICAL DATA SHEET - REV. 01/2023

DESCRIPTION

NEOFIL F 50 PLUS is a fine grained grey or white powder consisting of hydraulic binders, mineral fillers, synthetic resins and special additives. Mixed with water, it transforms into a thixotropic product with high workability, extended open time that facilitates the laying operations, accelerated hardening, high performance and high adhesion to materials of normal use in construction, applicable vertically without the risk of running or slipping of the tiles and free of particular shrinkage during hardening.

For thicknesses up to 10 mm.

Classification according to European standard EN 12004 - C2TE · Cement adhesive (C) improved adherence (2), no vertical slip (T), with extended open time (E).

FIELDS OF APPLICATION

NEOFIL F 50 PLUS is used for indoor and outdoor bonding, both on walls and floors, of all types of ceramic tiles such as single-fired, porcelain stoneware, low-thickness slabs, clinker, terracotta, ceramic and glass mosaics, for the bonding of stone, marble and recomposed material as long as they are dimensionally stable and not sensitive to humidity. NEOFIL F 50 PLUS is also suitable for points bonding of insulating materials such as polystyrene foam, polyurethane foam, cork, glass or rock wool, Eraclit, sound-absorbing panels, etc.. It can be applied on all the cement surfaces of normal use in construction such as plaster, concrete, cellular concrete, self-levelling screeds, cement screeds also subjected to intense traffic, screeds made with products of the NEOCEM line. NEOFIL F 50 PLUS can be used for laying floors or coatings on plaster or plasterboard supports, provided it is rigidly supported, on anhydrite screeds (after application of PRIMER A 16 insulation), for the laying of floors on heating screeds (only for tiles with a size not exceeding 900 cm²), for overlapping laying on existing ceramic or marble floors suitably prepared and for the laying of floors on elastomeric-cement or elastomeric waterproofing membranes.

In order to make the adhesive deformable or highly deformable (S1/S2 according to EN 12004), mix NEOFIL F 50 PLUS with elasticated polymer latex ELASTOKOL, in total or partial replacement of the mixing water.

PREPARING THE SURFACE

The surface must be sufficiently dry and aged, mechanically resistant, planar, solid, compact, free of fragile or inconsistent parts, free of dust, grease, oils, paints, waxes or anything else that may affect the perfect adhesion of the product.

Cementitious substrates must not be subject to shrinkage following the laying of the tiles and, therefore, must have already made the hygrometric shrinkage that can be evaluated in one or two weeks for each centimeter of thickness for the plasters and in at least 28 days of overall curing for the cementitious screeds, unless they are made with NEOCEM PRONTO FIBRATO ready-to-dry and shrinkage-compensated screed or with a special NEOCEM hydraulic binder. The anhydrite screeds must be perfectly hardened, clean, dry (maximum residual humidity 0.5%) and must be

treated, after sanding, with synthetic resin-based insulating PRIMER A 16. For direct laying on plaster or plasterboard always apply a treatment with PRIMER A 16. Very porous, highly absorbent and superficially chalking surfaces must be treated with consolidating impregnating agent RASOTECH PRIMER CONSOLIDANTE, in order to decrease the absorption of the screed and improve the workability and adhesion of NEOFIL F 50 PLUS.

APPLICATION

When preparing the mixture, pour a 25 kg bag of NEOFIL F 50 PLUS into a clean container containing roughly 7.5 litres of clean water and mix until a homogeneous and lump-free paste is obtained. Allow the mixture to rest for a few minutes, stirring briefly before use. This mixture remains workable for about 6-8 hours at a temperature of +23 °C.

Apply a zero layer of the adhesive to the substrate with a smooth spatula, in order to ensure better adhesion, lengthen the open and registration time. Immediately afterwards apply, by means of a spatula with suitable teeth, the amount of mixture necessary to ensure the perfect wetting of the reverse of the tiles. Lay the tiles by applying adequate pressure to ensure contact with the adhesive. Make sure that the adhesive applied on the surface is always fresh and has not formed a surface film; in this case, cool the adhesive by re-spreading it with a toothed spatula. For large-format tiles, for outdoor installations or in very humid environments, in environments subject to intense traffic, for floors to be smoothed on site or subject to heavy loads, spread the adhesive also on the reverse side of the same (double-buttering technique), to prevent gaps remaining which could cause breakage or detachment due to the pressure of concentrated loads or frost. Provide perimeter joints and elastic fractionation joints every 20-25 m² internally, every 10-15 m² externally and every 8 linear metres along the corridors. In any case, always adhere to the structural expansion joints and any markers that may be present.

Provide joints between tiles of at least 2-3 mm depending on the type and format of the coating. The execution of the joints can be carried out after 6 hours from the laying for coatings and after 24 hours for floors with the special mineral sealants COLMEF, available in different colours. The surfaces can be put to use after 7-14 days depending on the environmental conditions.

YIELD

2.5-5.0 kg/m² depending on the type of support and the type of tile.

RECOMMENDATIONS

- ◆ High or low temperatures can affect the final hardening times, shortening or significantly lengthening them. In these conditions it may be useful to moisten the cement substrates before applying the adhesive to lengthen the open time.
- ◆ Do not use NEOFIL F 50 PLUS on unaged cement supports, concrete subject to strong shrinkage, metal surfaces, wood, fibre cement, plastic and resilient materials.
- ◆ Do not stir or add water to the product that has already started gripping.
- ◆ Protect the coating from rain, runoff, direct sunlight and frost for at least 24 hours or until the product is completely hardened.
- ◆ Wash with water all the tools used for the preparation and application of the product before it hardens. After gripping, the mortar can only be removed mechanically.

PACKAGING

NEOFIL F 50 PLUS is supplied in 25 kg polythene paper bags on 1500 kg pallets. Store the product in dry environments and in the original packaging tightly closed. Under these conditions its stability is at least 12 months.

SAFETY INSTRUCTIONS

The product contains cement which, when in contact with body sweat, produces an irritating and sensitizing alkaline reaction to the skin. Wear suitable clothing, gloves and protective goggles.

For more information on the safe use of the product, refer to the relevant Safety Data Sheet.

ITEM SPECIFICATIONS

Installation of ceramic tiles, mosaics and stable natural stones with mineral adhesive with improved adhesion, zero vertical sliding and elongated open time, high workability, accelerated hardening and fine particle size, classified as

C2TE by the EN 12004 standard, such as **NEOFIL F 50 PLUS** by Colmef Srl, suitable for laying on traditional surfaces or overlapping on existing floors. In order to make the adhesive highly deformable (S2 according to EN 12004), mix **NEOFIL F 50 PLUS** with polymeric elasticising latex, such as ELASTOKOL by Colmef Srl; the modified adhesive will be suitable for wall and floor installation in all jobs where high adhesive deformability is required.

TECHNICAL DATA

Compliant with the Standard:	EN 12004
Class:	C2TE
Appearance:	powder
Colour:	grey white
Apparent specific weight (kg/m ³):	1300
Solid residue (%):	100
Mixing ratio:	~ 7.5 litres of water per 25 kg of powder
pH value:	≥ 12
Flammability:	no
Register time:	≥ 45 min.
Mixture lifetime:	6-8 h
Execution of wall joints:	6 h
Execution of floor joints:	24 h
Put into service:	7-14 days
Permissible application temperature:	from +5 °C to +35 °C
Operating Temperature:	-30 °C to +90 °C

FINAL PERFORMANCE according to EN 12004 Class C2TE

	Results	Test method
Initial adhesion after 28 days (N/mm ²):	≥ 1.0	EN 1348
Adhesion after heat action: (N/mm ²):	≥ 1.0	EN 1348
Adhesion after immersion in water (N/mm ²):	≥ 1.0	EN 1348
Adhesion after freeze-thaw cycles (N/mm ²):	≥ 1.0	EN 1348
Open time: traction adhesion (min.):	≥ 30	EN 1346
Vertical slip (mm):	≤ 0.5	EN 1308

DATA DETECTION AT +23°C - 50% R.H. AND IN ABSENCE OF VENTILATION

The information in this bulletin is based on our best experience. We cannot be held liable for any product misuse. We therefore recommend anyone who intends to use this product to assess whether it is suitable for the intended application and to perform preliminary tests in any case. Always refer to the latest updated version of the technical data sheet available at www.colmef.com.

FOR MORE INFORMATION OR PARTICULAR USES, CONTACT THE COLMEF TECHNICAL SUPPORT DEPARTMENT.

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