

Neofil F 20 S2

LIGHTWEIGHT, HIGHLY DEFORMABLE ADHESIVE, LOW DUST EMISSION, VERY HIGH YIELD, HIGH WETTING CAPACITY, EXTENDED OPEN TIME AND ZERO VERTICAL SLIP, FOR INSTALLING ALL TYPES OF CERAMIC TILES. IDEAL FOR LARGE FORMATS, OVERLAYS AND HEATED FLOORS. FOR INDOOR AND OUTDOOR USE.



DESCRIPTION

NEOFIL F 20 S2 is a powder adhesive made of special hydraulic binders, lightweight mineral fillers that give the product very high yield, and a high content of synthetic resins that make the adhesive highly deformable. NEOFIL F 20 S2 contains special additives that reduce dust emission during product mixing. When mixed with water, it becomes a thixotropic paste with excellent workability, extended open time that facilitates installation, high performance and high adhesion to all materials normally used in construction. It has good capacity to absorb deformation of both the substrate and the tiles and can be applied vertically without risk of dripping or tile slippage. It also shows no significant shrinkage during hardening. NEOFIL F 20 S2 is particularly suitable for installing all types of ceramic tiles and slabs, including large formats. For thicknesses up to 15 mm.

Complies with European Standard EN 12004 - Class C2TE S2 - Improved cementitious adhesive (C) (2) with zero vertical slip (T), extended open time (E), highly deformable (S2).

FIELDS OF APPLICATION

NEOFIL F 20 S2 is used for bonding indoors and outdoors, on walls and floors, all types of ceramic tiles such as single-fired tiles, porcelain stoneware, laminated stoneware, thin slabs, large formats, 300 x 150 cm slabs, clinker, terracotta, ceramic and glass mosaics; and for bonding stone materials, marble and engineered stone provided they are dimensionally stable and not moisture-sensitive. When the double-buttering technique is used, small- or medium-format ceramic or porcelain tiles, ceramic and glass mosaics and natural stone can also be bonded to ceilings without mechanical supports. NEOFIL F 20 S2 is also suitable for spot bonding insulating materials such as expanded polystyrene, expanded polyurethane, cork, glass or rock wool, Eraclit and sound-absorbing panels, etc. It can be applied to all common cementitious substrates used in construction such as renders, concrete, aerated concrete, self-levelling screeds, cement screeds even under heavy traffic, and screeds made with products from the NEOCEM range. NEOFIL F 20 S2 can be used to install floors or coverings on gypsum or plasterboard substrates, provided they are rigidly supported, on anhydrite screeds (after application of PRIMER A 16 insulating primer), for floors on heated screeds, for overlay installation on suitably prepared existing ceramic or marble floors, and for ceramic floors on elastocement or elastomeric waterproofing membranes. NEOFIL F 20 S2 is suitable for laying waterproofing uncoupling membranes in polyethylene, both with dovetail inserts and with non-woven fabric, and for subsequent ceramic tiling.

SUBSTRATE PREPARATION

Substrate preparation (UNI 11493 - section 7.3). Substrates must be sufficiently dry and cured, mechanically strong, flat, sound, compact, free from friable or loose parts, dust, grease, oils, paints, waxes or anything else that could impair perfect product adhesion.

Cementitious substrates must not be subject to shrinkage after tile installation and therefore must have completed hygrometric shrinkage, estimated at one to two weeks per centimetre of thickness for renders and at least 28 days total curing for cement screeds, unless they are made with rapid-drying, compensated-shrinkage ready-mixed screeds such as NEOCEM PRONTO FIBRATO or NEOCEM EASY, or with special hydraulic binder NEOCEM LEGANTE. Anhydrite screeds must be fully hardened, clean and dry (maximum residual moisture 0.5%) and, after sanding, must be treated with PRIMER A 16 water-dispersed synthetic resin insulating primer. For direct installation on gypsum or plasterboard, always apply PRIMER A 16. Highly porous, strongly absorbent or superficially powdery surfaces must be treated with RASOTECH PRIMER CONSOLIDANTE consolidating impregnator to reduce screed absorption and improve the workability and adhesion of NEOFIL F 20 S2.

APPLICATION

To prepare the mix, pour one 15 kg bag of NEOFIL F 20 S2 into a clean container with 6.5-7 litres of clean water and mix until a homogeneous, lump-free paste is obtained. Let the mix rest for a few minutes, then remix briefly before use. The mix remains workable for about 6 hours at +23 °C. Apply a zero coat of adhesive to the substrate with a smooth trowel to improve adhesion and extend open and adjustment times. Immediately afterwards, use a suitably notched trowel to apply the amount of mix required to ensure complete wetting of the back of the tiles. Install the tiles with firm pressure to ensure contact with the adhesive. Make sure the adhesive spread on the surface is always fresh and has not formed a skin; if it has, refresh it by combing again with a notched trowel. For large-format tiles or tiles with an irregular back, for outdoor installation or in very humid or heavy-traffic areas, also apply adhesive to the back of the tiles (double-buttering technique) to prevent voids that may cause breakage or detachment due to concentrated loads or frost. Provide perimeter joints and elastic movement joints every 20-25 m² indoors, every 10-15 m² outdoors and every 8 linear metres along corridors. Always respect any structural expansion and floor-level joints present. Provide tile joints of at least 2-3 mm depending on the type and size of the covering. Joints may be grouted after 6 hours for wall coverings and after 24 hours for floors using suitable COLMEF mineral grouts, available in various colours. Surfaces may be put into service after 7-14 days depending on environmental conditions.

COVERAGE

2 - 2.5 kg/m².

RECOMMENDATIONS

- ◆ High or low temperatures can significantly affect final hardening times, shortening or lengthening them. Under these conditions, it may be useful to dampen cementitious substrates before applying the adhesive to extend open time.
- ◆ Do not use NEOFIL F 20 S2 on uncured cementitious substrates, concrete subject to strong shrinkage, metal surfaces, wood, fibre cement, plastics or resilient materials.
- ◆ Do not remix or add water once the product has begun to set.
- ◆ Protect the covering from rain or washout for at least 24 hours and from direct sunlight and frost for at least 5-7 days after installation.
- ◆ Wash all tools used for preparation and application with water before the product hardens. After setting, the mortar can only be removed mechanically.

PACKAGING

NEOFIL F 20 S2 is supplied in 15 kg polyethylene-lined paper bags on 900 kg pallets. Store the product in dry areas in its original tightly closed packaging. Under these conditions its stability is at least 12 months.

SAFETY INSTRUCTIONS

The product contains cement which, in contact with body perspiration, produces an irritating alkaline reaction and may sensitize the skin. Wear suitable clothing, gloves and protective goggles.

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

SPECIFICATION

Installation of all types of ceramic tiles, including thin and large-format slabs, mosaics and dimensionally stable natural stone, using a lightweight highly deformable adhesive with low dust emission during mixing, very high yield, 28-day adhesion of 2.8 N/mm², zero vertical slip, extended open time and excellent workability, classified C2TE S2 according to EN 12004, such as NEOFIL F 20 S2 by Colmef Srl, suitable for installation on traditional substrates or overlaying existing floors.

TECHNICAL DATA

Complies with:	EN 12004
Class:	C2TE S2
Appearance:	powder
Colour:	grey, white
Apparent bulk density (kg/m ³):	860
Solids content (%):	100
Mixing ratio:	6.5-7 litres of water per 15 kg of powder
pH value:	> 12
Flammability:	no
Adjustment time:	>= 45 min.
Pot life:	6 h
Wall grouting:	6 h
Floor grouting:	24 h
Ready for service:	7-14 days
Permitted application temperature:	from +5 °C to +35 °C
Service temperature:	from -30 °C to +90 °C

FINAL PERFORMANCE according to EN 12004 Class C2TE S2

	Results	Test method
Initial adhesion after 28 days (N/mm ²):	>= 2.8	EN 1348
Adhesion after heat ageing (N/mm ²):	>= 3.6	EN 1348
Adhesion after water immersion (N/mm ²):	>= 1.9	EN 1348
Adhesion after freeze/thaw cycles (N/mm ²):	>= 1.1	EN 1348
Open time: tensile adhesion (min.):	>= 30	EN 1346
Vertical slip (mm):	<= 0.5	EN 1308
Transverse deformation (mm):	>= 5.0 (S2 highly deformable)	EN 12004

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

The information and instructions above are based on our best experience. However, we cannot assume any responsibility for improper use of the products. We therefore recommend that users assess whether the product is suitable for the intended use and always carry out preliminary tests. Always refer to the latest updated version of the technical data sheet, available at www.colmef.com.

FOR FURTHER INFORMATION OR SPECIAL USES, CONSULT COLMEF TECHNICAL ASSISTANCE SERVICE.

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