

Floor 4310 Fibre Flow

1, 03/07/2007

To replace ABS 200

Product description

Floor 4310 Fibre Flow is a pumpable floor levelling compound for floors. It is fibre reinforced and designed specifically for the renovation of existing floors and floating floor construction. The material only requires a light smoothing with a notched trowel to achieve a surface flat and smooth enough for floor covering. The material is supplied as a dry powder containing high alumina cement, sand, supplementary binders and additives. Maximum grain size is 3 mm. The product is controlled by a third party, SP the Swedish research and testing institute and CE-marked.

Field of application

Floor 4310 Fibre Flow is designed for the refurbishment of existing floors including domestic and commercial applications such as flats, offices and public buildings, and can be applied bonded, unbonded or as a floating floor.

Working instructions

Light ventilation in the work area is necessary but windows and door openings must be closed sufficiently to avoid draughts during and after application. The substrate and ambient temperature should not fall below +10°C or rise above +25°C for one week after that.

Substrate

Floor 4310 can be used over concrete, screeds, wooden boards, stone and ceramic tiles. The surface strength of the substrate must be over 0,5 N/mm². The relative humidity of the substrate must be less than 95%. The substrate has to be sound and free from surface contamination. All dust and debris should be vacuumed from the surface. If necessary the surface of the substrate should be prepared by grinding. Loose wooden boards must be fastened down.

If used as a floating screed ensure that all joints in the insulation material/plastic membrane are taped/sealed and all edge detailing at columns, walls and thresholds are carried out in accordance with maxit's details.

Preparation and Priming

The substrate should be mechanically prepared, vacuum cleaned and primed with Floor 4716 according to the instructions in the data sheet. On weak or non-homogeneous substrates and for floating floor construction glass fibre mesh Floor 4945 should be applied. For floating floor constructions wall insulation strips should be applied on each building element which is in contact with the screed layer; for example columns and walls.



Mixing

Floor 4310 can be mixed with an automatic screed mixer and clean water; the water amount is 21 % (of the powders dry weight), which corresponds to 5.25 litres / 25 kg bag. Pot-life is 20 min. from mixing with water. The temperature of the screed must be at least +10°C. Warm water (max. +35°C) can be used at low temperatures. The flow properties of the screed should be checked before and during pumping (further information is available from maxit). Excess water causes separation and weakens the strength of the screed surface, therefore do not use excessive amounts of water. In manual mixing the screed should be mixed with a powerful paddle mixer for at least 2 minutes.

Application

The maximum width of the pumpable area varies from 6 to 8 metres depending on pump capacity and application thickness. Wider areas can be temporarily divided with stop-ends. Pumping is carried out in sections so that a wet edge is maintained. A wide steel trowel is used to assist the self-levelling process. When Floor 4945 is used the minimum layer thickness is 10mm. For floating floor constructions e.g. on insulation, Floor 4945 fibre mesh must always be used and the layer thickness must be a minimum of 25mm.

After-treatment

Conditions which may lead to rapid drying should be avoided during application and for three days afterwards, such conditions may include draughts, elevated temperatures, low RH of the ambient air etc.

As soon as the screed is sufficiently dry, it should be covered with the final floor finish. If this is not possible then Floor 4790 Curing Membrane should be applied. Floor 4790 should also be used where there is concern that the drying conditions may lead to rapid drying from the floor screed.

Practical advice

In the case of particular construction conditions and/or floor configurations a dummy joint should be installed in the screed examples of where this may occur are partition, protruding walls, various screed thickness and doorways. The joint should be cut approx.30% of the thickness of the screed to avoid cutting through the mesh, but sufficient depth to induce a control crack, if this occurs.

Storage

Storage time in dry conditions 6 months.

Package

25 kg bag,
1000 kg Big bag

Drying time

Floor covering can be installed after 1-3 weeks depending on layer thickness and drying conditions. High humidity of the substrate and poor drying conditions prolong the drying time.

Safety instruction

Hazardous- Contains cement, which is alkaline when wet and can cause skin irritation. Use eye protection, gloves and barrier cream and avoid prolonged skin contact. Avoid inhalation of dust. Wash skin contamination away with warm soapy water. Remove splashes to the eyes by prolonged irrigation and consult a doctor. Do not ingest. Refer to Health and Safety Data Sheet.

Application temperature	+10°C to +25°C
Maximum thickness	50 mm
Minimum thickness	5 mm Bonded, 10mm Unbonded, 25mm Floating
Water demand	5.25 litres/25 kg (21 % of dry weight)
Adhesion strength 28 d,,	> 1.0 N/mm ²
Compressive strength class	C20
Compressive strength (28 day)	mean value 26 N/mm ²
Flexural strength class	F5

Flexural strength (28 day)	mean value 6 N/mm ²
Shrinkage (28 days)	< 0.04 %
Flow rate according to (maxit standard)	220 - 235 mm
Flow rate according to (Flow ring 50 x 22 mm)	135 - 145 mm
Hardening time (before foot traffic)	2 - 4 hours (Bonded) 6 - 8 hours (on insulation or unbonded)
Hardening time (before common traffic)	Final floor covering after 1 -3 weeks depending on the layer thickness and drying conditions.
Transverse tensile strength	>1.0
Chemical requirements (of cured material)	pH-value 10.5 - 11
Recommended water content	21 %, 5.25 litres per bag
Pot life	Maximum 15-20 minutes dependent upon ambient temperature

Material consumption,	1mm = 1.7 kg/m ²
	5mm = 8.5 kg/m ²
	10 mm = 17 kg/m ²

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