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FLOW CS



Product description

Flow CS is a high-strength cement-based floor screed. Especially suitable for polyurethane and epoxy-coated subfloor structures in homes, commercial premises, hospitals, offices and schools. The product does not contain fiber that would hinder coating work. When using acrylic coatings, check product compatibility with the coating manufacturer. Flow CS can be applied by trowel or by pumping. With a minimum layer thickness of 5 mm, the product can be used for alkali protection.

- Layer thickness 2 - 30 mm (partial levelling max. 50 mm)
- Pumpable and suitable for leveling by hand
- Compressive strength C 30
- Surface tensile strength > 2.0 MPa

Applications

- For polyurethane and epoxy-coated subfloor structures
- As a base for mats for public spaces
- For alkali protection with a minimum layer thickness of 5 mm
- For leveling cavity slabs and concrete floors where high strength is required
- As a base for adhesive surface materials

The product is listed in the portal for building products that can be used in Nordic Swan Ecolabelled buildings.

Instructions

Base

- Concrete and hollow slab bases
- The base must be clean, dust-free, solid and firmly fixed in place
- Loose layers, cement paste, and other impurities have been mechanically removed to ensure adhesion between the floor levelling compound and base
- The tensile strength of the base must be > 1.0 MPa
- The temperature of the underfloor structure is > +10°C and relative humidity < 95% RH The relative humidity of the underfloor structure affects the setting of the floor levelling compound
- If necessary, any unevenness can be filled in with the appropriate Fescon product before floor leveling.
- Possible leakage areas are sealed with putty

Priming

- Priming is performed according to the instructions of Fescon Adhesive Promoter or Flow Primer, depending on the base

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- Priming of non-absorbing surfaces (such as ceramic tiles, epoxy, metal surfaces) according to the instructions of Primer PLUS

Instructions for use

- The workspace must be protected all over against wind, draught, sun, and rain
- When pumping, the minimum layer thickness must be checked with the floor work contractor
- During floor work, the indoor temperature has to be +10°C…+25°C, and the relative humidity of the indoor air > 40% RH
- Mix a bag (20 kg) of the levelling compound in 3.8 - 4.2 litres of cold water
- Do not use more water than instructed, because it will reduce the strength values of the floor levelling compound, increases the risk of separation, and adds to the setting time of the floor levelling compound
- The levelling compound is mixed to a consistent paste with a drill paddle, or if pumped, with an automated or pipe mixer.
- Apply the levelling compound with a steel trowel or pump onto the surface being levelled. Pumped floor leveling with a thickness of 10–30 mm is finished with a roller screed, and thicker layers are leveled by breaking the surface tension of the leveling compound.
- Workable for about half an hour after adding water
- Wash tools with water immediately after completing the work
- Make sure ventilation is adequate after finishing the floor levelling compound work.
- If need be, the setting of the floor levelling compound can be accelerated by grinding the surface because this reduces the resistance of water vapour in the surface of the floor levelling compound
- The setting times are greatly affected by the conditions at the work site, ventilation, and the amount of water used in the floor levelling compounds
- Pumping from a tanker lorry is not recommended < -20°C
- The floor load capacity is estimated work site specifically with the floor levelling contractor

Covering

- Can be coated with polyurethane and epoxy products with a layer thickness of more than 3 mm.
- Can be coated with ceramic tiles, plastic coatings, textile mats, vinyl tiles, wood parquet or laminate, and cork. If necessary, overlaying by Fescon manually-applicable levelling compounds, such as FlowPlan
- Suitable as a base for wood flooring, or can be painted as it is.
- However, it must be ensured that the levelling compound, concerning its technical properties, meets the requirements of the manufacturer of the floor covering and RYL for bases to be covered, with the entire structure in mind. The straightness of the levelled surface is measured according to the RT instruction 14-11039, if necessary.
- The floor levelling compound must not be left uncovered for more than 3 months due to the risk of it cracking or detaching.
- Good setting properties for the floor levelling compound require that the indoor humidity is less than 50% RH and the temperature is over +20°C. Poor conditions slow down the development of the strength characteristics of floor levelling compounds and increase the setting time.
- In conditions with an RH of less than 40%, special attention should be paid to when to start the aftercare. The need for aftercare is assessed on a case-by-case basis.

Waste handling

Storage and handling of waste
See the separate storage and disposal instructions https://www.fescon.fi/en/material-bank

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Technical information

Material usage	Approx. 1.7 kg/m^2/mm
Water requirement	3.8 - 4.2 l / 20 kg (130 - 135 mm flow as measured by Fescon flow plate)
Type	Powder
Binder	Special cement
Colour	Grey
Maximum grain size	0.6 mm
Package size	20 kg, 1000 kg
Storage	Storage time in a dry location approx. 10 months
Layer thickness	2 - 30 mm (partial levelling max. 50 mm)
Fibre	Non-fibre reinforced
Additives	Substances improving workability, casein-free
Usage temperature	+10°C...25°C (platform and internal temperature)
Workability time	Approx. 0.5 h
Coatable	1 to 3 weeks later, depending on the conditions and layer thickness (+20°C, RH 50 %), < 30 mm, > 30 mm the drying time will be longer
Walkable	Approx. 4 – 6 h
Strength class	C 30 (EN 13813)
Compressive strength	> 30 MPa (28 days, +20°C, RH 50 %)
Adhesion strength	> 1.5 MPa for concrete (28 days, +20°C, RH 50 %)
Flexural bond strength	F 6 (EN 13813)
Surface tensile strength	> 2.0 MPa
Wear resistance	RWA 20, AR 0,5
Frost resistance	Non-frost resistant, for indoor spaces
pH	< 11 low alkaline (hardened material)
Waterproofness	Water-resistant
GWP A1-A3	0,32
GWP unit	kg CO2e/kg
Method for calculating the GWP value	Generic

Limitation of liability, product use notes and restrictions: Please familiarize yourself with Fescon Oy's general terms of delivery and the design and work instructions related to the product.