

SMET LiteFlo® Lightweight Flowing Screed

SMET LiteFlo® Lightweight (Alpha Hemihydrate) Flowing Screed is a factory produced, pumpable, high-quality screed material based on calcium sulphate. It's supplied to site in pre-mixed 27kg bags or site silos. LiteFlo® is designed for application at thicknesses of between 20 and 70 mm, complies with EN 13813: 2002 and is CE marked.

- Lightweight - high yield, 43kg per m² @ 40mm
- 30% weight reduction compared to normal CA screed
- Ideal for application in high-rise buildings & over timber suspended floors
- Smooth Laitance Free Finish
- Pumpable
- Full Encapsulation of pipes and services
- CE Marked
- EN 13813: 2002
- Available in 27kg bags or site silos

Field Of Application

LiteFlo® is suitable for floors in homes, offices, public buildings and places exposed to similar loads. Due to its low bulk density, this product is ideally suited for renovation work in old buildings, over timber suspended floors and in high-rise buildings and apartment blocks. LiteFlo® may be applied as a levelling screed directly onto a load bearing floor; unbonded on a separating barrier (polythene), or as a floating floor and can be used in conjunction with underfloor heating or cavity floors. When using LiteFlo® in combination with underfloor heating, it should be noted that LiteFlo® has a low thermal conductivity. The fully dried LiteFlo® screed should be covered with a floor finish such as tiles, linoleum, wood, parquet, cork or carpet. If a cement based adhesive or smoothing compound is required, the surface of the screed must first be sealed using an appropriate acrylic primer/sealer. This product is not suitable for wet rooms.

Working Instructions

Light ventilation in the work area is necessary, but windows and openings must be closed sufficiently to avoid draughts, during and after application for at least two days. Do not use if the substrate or air temperature is below +5 °C or is above +35 °C.

Substrate

LiteFlo® Lightweight Flowing Screed is designed for use as a bonded thick levelling screed on concrete, as a floating screed over thermal or acoustic insulation, or as an unbonded screed on top of a plastic membrane.

Preparation and Priming

The substrate should be clean, dry, free of dust, grease and other impurities or contaminants that might prevent adhesion. If it is a large area, the surface should be treated by mechanical preparation by grinding or shot blasting. For bonded screeds, the substrate must be dry and should be primed with a suitable primer. If LiteFlo® is to be applied on plastic sheeting or as a floating floor, 8mm should be formed around the perimeter (walls, columns, etc).

Mixing

LiteFlo® should be mixed with clean water. Mixing time, if using a hand held mixer, is 2 minutes. Do not mix more material than can be laid in 30 minutes. A suitable mixing pump i.e. Putzmeister SP11 should be used for large areas. Do not mix in other materials.

Application

Pumping should be carried out in sections so that a wet edge is maintained. A wide steel tampering bar should be used to assist the levelling process. When applied bonded, the minimum thickness of LiteFlo® should be 20mm; over underfloor heating this should be a minimum of 25mm over the pipes (35mm over insulation board). Observe and regularly check the flow rate 24 - 26 cm (Häggermann cone). All relevant standards, guidelines and recommendations apply; workmanship must comply with good practice.

Storage

6 months under dry, protected conditions.

Disposal Considerations

Waste treatment methods. Recommendation: Smaller quantities can be disposed of with household waste. European waste catalogue 17 08 02. Uncleaned packaging: Recommendation: Disposal must be made according to official regulations. Recommended cleansing agents: Water, if necessary together with cleansing agents.

Safety

Classification according to Regulation (EC) No 1272/2008: GHS05, GHS07. Eye Dam. 1 H318 Causes serious eye damage. Skin Irrit. 2 H315 Causes skin irritation. Signal word: Danger. Hazard-determining components of labelling: Cement, portland, chemicals. Keep out of the reach of children. See CASEA Health and Safety Data Sheet for further detailed information.

Hazard Statements

H315 Causes skin irritation.

H318 Causes serious eye damage.

Precautionary Statements

P101 If medical advice is needed, have product container or label at hand.

P103 Read label before use.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.


P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

Technical Information

Screed Specification CA-C20-F4 as per EN 13813	
Maximum Thickness	70mm
Minimum Thickness	Bonded: 20mm Unbonded: 30mm Domestic: 35mm Commercial: 40mm Over Underfloor heating Pipes: 25mm (BS 8204-7)
Use	Internal only
Compressive Strength (28 days)	≥ 20.0 N/mm ²
Flexural Strength (28 days)	≥ 4.0 N/mm ²
Tensile Adhesion	> 1.5 N/mm ²
Flow Rate	240 – 260mm (slump flow - Hägermann cone)
Hardening Times (Light foot traffic)	After approx. 12 hours; can be partially loaded after approx. 7 days
Hardening Time	Final Covering: approx. 2 – 6 weeks dependent on thickness and drying conditions on site
Recommend water demand	8 - 9 l per 27kg bag
Working Life	45 - 60 minutes depending on ambient conditions
Thermal Conductivity (tabular value)	λR = 0.40 W/mK
Yield	1.08 kg/mm/m ²
Fresh (Wet) Density	1,500 kg/m ³
Hardened (Dry) Density	1,300 kg/m ³

	CASEA GmbH Pontelstraße 3 99755 Ellrich Germany 13 CASEA - 114 590
EN 13813 :2002 EN 13813 CA – C20 – F4 Calcium Sulphate screed material for use internally in buildings	
Reaction to fire	A1
Release of corrosive substances	CA
pH value	> 7
Water permeability	NPD
Water vapour permeability	NPD
Thermal Conductivity	< 0.4 W/m*K
Compressive strength	C20
Flexural strength	F4

NPD = No Performance Determined

CASEA
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