Supaflo HTC

technical datasheet

A screed with high thermal conductivity for use with underfloor heating systems

Supaflo HTC is a self compacting flowing screed based on an anhydrite binder. It is specifically intended for use with underfloor heating systems and is formulated to provide a floor with higher thermal conductivity when compared to traditional cement, sand screed and regular flowing screed.

Supaflo HTC is for use with both warm water and electric underfloor heating systems that use conventional heating sources and renewable technologies. A screed with higher thermal conductivity will heat up and cool down more rapidly providing greater system control and improve comfort levels.

Supaflo HTC can be installed over timber floors of sufficient structural support, Lewis decking, and in situ and precast concrete flooring substrates including concrete planks and block and beam systems.

Suitable for new build and refurbishment projects Supaflo HTC can help improve the sustainability criteria when compared to conventional screeds, it can also be installed with a minimum cover to the underfloor heating pipes of 20mm, subject to substrate suitability. At this reduced cover some differential settlement may occur.

It is recommended that Supaflo HTC is lightly sanded prior to overlaying, and is compatible with all types of floor covering.

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Site work

Supaflo HTC is delivered to site ready mixed, once tested and if required, the flow adjusted. It should then be pumped directly to the point of use.

A typical, well maintained, worm pump should be able to deliver the product 100m horizontal and 30m vertical and discharge a 5m^3 load in approximately 30 minutes.

Supaflo HTC is finished using lightweight dapple bars (15 to 30mm Ø) the product should be dappled twice in adjacent directions.

Supaflo HTC should only be used if the building envelope is complete; doors and windows should be in place and must be closed for the first 24 to 48 hours after installation to prevent drafts blowing across the surface of the screed.

Performance

Working time	Batched, transported, placed and finished within 3 hours
Foot Traffic	24 to 48 hours
Loading	5 to 7 days
Drying time	Approximately, 1mm per day up to 40mm, then 0.5mm per day
Forced drying	Can be forced dried after 7 days using the underfloor heating system or temporary dry source heater or dehumidifiers. Forced drying will reduce drying times.
Thickness (min)	Floating inc. underfloor heating – 20mm cover above pipes or cables Most underfloor heated screed are installed 45 to 55mm thick

Technical*

Appearance	Off white fluid mortar	
Density	Plastic	2150 - 2250kg/m^3
	Dry	1950 - 2050kg/m^3
Strength (28 day)	CA C30 – F5	
Flow (BS8204:7 Annex A, Truncated cone)	230 to 270mm	
Strength (28 day)	CA C30 – F5	
Thermal conductivity	Samples prepared using reference sand tested by Warwick University to ASTM 1530 achieved 2.5W/mK For UK calculation a value of 2.3W/mK is recommended	

Environmental*

Recycled content	Binder	98%
	Mortar	up to 40%
Carbon emissions	Binder	10 to 20kg per tonne
	Mortar	20 to 40kg per m^3
VOC	Virtually zero	
Recyclability	100%	

*Figures provided by LKAB Minerals

This product range can be found in the following resources and supported with an approved CPD presentation:

NBS Plus | NBS National BIM Library | riba product selector