technicaldatasheet

floor it ultracem

pot life
60mins

foot traffic
12hrs

floor covering
24hrs



screed

INFORMATION
floor it ultracem is a fibre modified hydraulic binder which, when mixed with graded aggregates and water, can produce a rapid drying high strength screed ready to receive floor finishes such as ceramic/natural stone tiles, wood, lino, carpet etc. between 24hrs and 4 days. **floor it ultracem** can be used to form screeds that are bonded, unbonded or floating and suitable for use with underfloor heating. **floor it ultracem** formulated screed meets the requirements of BS8204-1.

USES
- Can accept light foot traffic after 12 hours and receive floor coverings after 24 hours.
- For highly trafficked areas such as hospitals, shopping centres, warehouses and airports etc.
- Rapid reinstatement where early trafficking or overlay is required.
- Suitable for underfloor heating systems.
- Suitable for internal and external use.
- Compatible with thin cementitious systems such as floor it and UltraFloor levellers and thin resin coatings.
- Patching and repairing
- Suitable for use where BRE screed test category A or B is required.

MIXING
floor it ultracem, aggregates and water can be mixed using mechanical mixers such as, concrete pan mixer, forced action mixer, screw mixer or pressurized screed pump.

Where it is not possible to use a mechanical mixer and mixing by hand is required, it is recommended to thoroughly dry mix the **floor it ultracem** with the aggregates. Then adding water in small increments whilst mixing until a "damp earth" mix is achieved, typically 5 minutes. The screed should hold together when formed into a ball.

RECOMMENDED MIX DESIGN

floor it ultracem binder	250kg/m^3
0/8mm aggregate	1750kg/m^3
Water	100kg/m^3

***Note:** Water addition may vary depending on moisture content of the aggregate being used.*

All test data is based on using the 0/8mm aggregate. If it is not possible to obtain the specified 0/8 aggregate, then 0/4mm aggregate can be used instead. See below for mix designs.

TYPICAL SCREED MIX DESIGN USING (0/4MM) AGGREGATE
SCR BS 8204-1 Cat A – 100kg ULTRACEM: 360kg (0/4mm) Aggregate.

ISCR BS 8204-1 Cat B – 100kg ULTRACEM: 500kg (0/4mm) Aggregate.

Light foot traffic	24 hours
Full Traffic	7 days
Drying Time	7 days per 25mm (in good conditions)

APPLICATION
All correctly prepared substrates are suitable for receiving an **floor it ultracem** modified screed. All screeds should be installed using good concrete practice e.g. incorporating expansion joints where required, day joints and steel rods where required.

For unbonded screeds (minimum of 35mm thick) Isolate the substrate with a polyethylene sheet or similar. For rising damp provide a suitable waterproof membrane. The mix must be spread, tamped and levelled as soon as possible (must be within hour of mixing). When floated, should provide a closed smooth surface without bleeding.

For floating screeds (minimum of 55mm thick) the screed is applied as above for unbonded screeds. Where underfloor heating pipes are present, there should be a minimum of 25 mm of screed above the pipes. The underfloor heating may be commissioned after 4 days.

For bonded screeds (minimum of 10mm thick) the substrate must be dry, sound and solid, free from cracks, dust, loose material, oil, paint, wax and traces of gypsum. Apply UltraScape pro-prime slurry primer onto the substrate and apply the **floor it ultracem** modified screed whilst the primer is still wet e.g. wet on wet. If the primer dries out it needs to be re-applied.

The **floor it ultracem** modified screed is applied in the same way normal screed is applied.

PRECAUTIONS
- Do NOT mix **floor it ultracem** with other cements or binders
- Do NOT dry mix with aggregate and leave
- DO NOT overwater **floor it ultracem** screed
- DO NOT add water or re-agitate the screed once setting has started
- DO NOT use fine sand only – use aggregate grading as in BS EN 13139 (0/8) or (0/4) if not available.
- USE the **floor it ultracem** screed as soon as it is mixed.

CURING AND DRYING
All curing and drying times are based on good site conditions i.e. an air temperature of 20°C, air humidity of 65% RH and good ventilation. Sites that are cold, humid or damp or in areas where the airflow is poor, will prolong drying and curing times, so allowances should be made accordingly. Applications to non-absorbent substrates and at thicker application depths will take longer to dry.

COVERAGE
Consumption varies depending on thickness of the screed and the dosage of **floor it ultracem**. For doses of 250 kg of **floor it ultracem** per m^3 of aggregate consumption is 2.0 - 2.5 kg/m^2/mm of thickness. Consumption rate is dependent on ratio, aggregate type/ size and grading used.

CLEANING
Tools should be thoroughly cleaned in water to remove excess materials immediately after use.

STORAGE
Store in a dry place at temperatures between 5°C and 35°C.

SHELF LIFE
If stored correctly and used within 8 months of the date shown on the bag, the reducing agent activity will be maintained and this product will contain, when mixed with **floor it ultracem**, no more that 0.002% (2 ppm) soluble Chromium (VI) of the total dry weight of the cement. Shelf life in correctly sealed bags is 8 months. Please note: the use of this product after the end of the declared storage period may increase the risk of an allergic reaction.

TECHNICAL DATA	
Application temperature (°C)	5 to 35
Density of mix (kg/m3)	2100
Pot life of mix (minutes)	60
Light foot traffic (hour)	12
Application of ceramic tiles (days)	1
Application of natural stone (days)	2
Application of vinyl and wood (days)	4
Application of leveller (days)	1 to 4 depending on depth.

It is advisable to conduct moisture testing prior to laying overlays.

STRENGTH PROPERTIES BS EN 13892 WITH FLOORIT ULTRACEM (8:1 RATIO).		
TIME (days)	Compressive Strength (N/mm^2)	Flexural Strength (N/mm^2)
1	> 8	> 3
4	> 14	> 4
7	> 20	> 5
28	> 30	> 6

HEALTH, SAFETY AND ENVIRONMENTAL
Please ensure that appropriate PPE is used when preparing, mixing and applying products. Always wash your hands before consuming food and make sure that materials are kept safely out of reach of children and animals. Please dispose of packaging and waste responsibly and in accordance with local authority requirements. A full material datasheet relating to this product is available from instarmac.co.uk.

QUALITY ASSURANCE
All products are manufactured in a plant whose quality management system is certified/ registered as being in conformity with BS EN IS0 9001, ISO 14001, and OHSAS 18001. Our products are guaranteed against defective materials and manufacture and will be replaced or money refunded if the goods do not comply with our promotional literature. We cannot however accept responsibility arising from the application or use of our products because we have no direct or continuous control over where and how products are used. All products are sold subject to our conditions of sales, copies of which may be obtained upon request.

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