



Flowment Rapid 560

Rapid, self smoothing, cementitious flooring system for domestic and commercial use

PRODUCT

FLOWMENT RAPID 560 is a machine or hand applied screed formulated from special cements, aggregates, supplementary binders and chemical admixtures. It is supplied as a pre-blended, dry powder designed for application at thicknesses between 2 and 30 mm in one operation.

ADVANTAGES

FLOWMENT RAPID 560 enables fast track construction with installation rates of up to 300 m² per hour at 6 mm thick. Under normal conditions, access onto the floor is available after 1 - 3 hours and the final flooring can be laid after 1 day (for a 10 mm layer) providing that the substrate is suitably dry. The obtained surface is so smooth that vinyl or carpet can be laid directly onto it and at the same time, provides a durable surface for use in commercial and domestic areas. FLOWMENT RAPID 560 combines rapid hardening and self-flowing properties with low shrinkage.

APPLICATIONS

FLOWMENT RAPID 560 is designed for use on both new and old concrete for new buildings and refurbishment projects. It can be used to level and smooth a wide range of substrates, including in-situ and pre-cast concrete.

FLOWMENT RAPID 560 does not contain casein and other protein bearing additives, making it particularly suitable for use in hospitals and food preparation or storage areas.

SUBSTRATE

FLOWMENT RAPID 560 is principally designed for application on concrete, wood, stone and PVC substrates. Uneven substrates should always be levelled with FLOWMENT RAPID 560. Weak or soft substrates, such as asphalt, which may be subjected to movement under imposed load (either in use or during material curing) must be removed. Contraction joints, construction joints and cracks in the substrate which may be subjected to movement after installation of FLOWMENT RAPID 560 must be maintained as joints in the new surface.

SURFACE FINISH

In appearance, FLOWMENT RAPID 560 can be compared to ordinary concrete flooring. As an underlayment, FLOWMENT RAPID 560 is compatible with most commonly used adhesives and soft floor finishes as well as with hardwood flooring, ceramic tiles and athletic flooring. FLOWMENT RAPID 560 can be used as a finished floor.



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PROPERTIES

Depending on the raw materials used, the properties of the hardened material after 28 days at ambient temperature of $26^{\circ} \pm 2^{\circ}\text{C}$ and a water content of 19%, should be:

Technical Data:

Flexural strength (ASTM C348 : 95)	> 7 N/mm ²
Compressive strength (ASTM C349 : 95)	> 30 N/mm ²
Tensile Adhesion to concrete (BS 8204 : Pt 3 : 99)	2.5 N/mm ² *
Flowability (ASTM C939 : 97)	148 secs. *
Abrasion Resistance (BS 8204 : Pt 2 : 99) [Concrete Abrasion Tester]	
@ 28 days	0.06 mm *
@ (7 days air cured + 14 days aging @ 70°C)	0.10 mm *
Slip Resistance (BS 8204 : Pt 2 : 99)	
@ 28 days	SRV (wet) = 53 *
@ (7 days air cured + 14 days aging @ 70°C)	SRV (wet) = 61 *
Water absorption (ASTM C413 : 94)	8.1% *
Shrinkage (ASTM C531 : 95)	
@ 28 days air-cured	0.02% *
@ 28 days air-cured plus QUV	0.04% *
pH value	Approx. 11
Bulk density	1,600 kg/m ³
Cure time (foot traffic)	1 - 2 hours
Cure time (covering)	12 - 24 hours

- * Tested by SETSCO.

- The cure times given above are for a 10 mm layer and are dependent upon temperature relative humidity and the moisture content of the substrate. FLOWMENT RAPID 560 will not burn, propagate flame or produce smoke.

WATER RESISTANCE

After curing, FLOWMENT RAPID 560 can be exposed to water spillage without damage. However, saturation with water over longer periods may reduce the strength to less than its normal value with full strength returning within 24 hours of drying out.

CHEMICAL RESISTANCE

FLOWMENT RAPID 560 has a chemical resistance similar to that of dense concrete. If the floor is likely to be continuously exposed to chemicals, the surface must be protected.



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COVERAGE

Depending on the surface to be treated. Normally approximately 10 kg of dry powder per square metre, corresponding to a layer of 6 - 7 mm thickness, is required. Dry powder consumption is 1.7 kg per mm thickness and square metre.

INSTALLATION

Preparation of substrate:

The surface to be treated must be clean, sound and free from surface contamination. All dust and debris should be vacuumed from the surface. Concrete laitence and old coatings should be removed mechanically e.g. by enclosed shot blasting, scabbling or scarification. Concrete contaminated by oil or grease may require flame gunning and/or treatment with a proprietary degreaser.

Priming:

FLOORPRIME should be applied to the prepared surface using a soft brush or a primer pump, avoiding ponding, and allowed to become touch dry (1 - 2 hours under normal conditions). FLOORPRIME should be diluted with clean, potable water at the ratio to 1:5 for the first coat and 1:3 for the second one. Prelevelling with FLOWMENT RAPID 560 should be primed with FLOORPRIME, diluted 1:3 with water prior to the application of FLOWMENT RAPID 560.

Mixing:

FLOWMENT RAPID 560 can be applied by means of appropriate mixer pump or manually by hand. Only clean potable water should be used.

Water demand is about 4.5 to 5.0 litres per 25 kg bag.

For manual application, use of mechanical mixer is recommended. Mixing time is between 2 - 3 minutes depending on the type of mixing equipment used. FLOWMENT RAPID 560 should be used within 20 minutes.

Application:

Door thresholds, stairs, drains and gulleys should be insulated using foam barrier strips, and larger areas should be divided into bays. The width of the bay is determined by the pumping capacity of the equipment and the thickness of the layer to be applied, but normally it does not exceed 10 to 12 metres.

The mixed material is pumped onto the surface through the discharge hose, which is moved across the surface at a constant pace when a screed of uniform thickness is required. Under normal conditions the mixer pump will deliver a nominal 6 - 7 mm layer of material. Levels may be corrected by applying greater or lesser amounts of material as required, and falls may be maintained by pumping from the higher to the lower end. The freshly applied material may be lightly trowelled with a serrated steel spatula to assist dissipation of surface bubbles and lines left by the hose. The semi-hardened material may easily be formed or cut allowing any necessary adjustments to be made.



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FLOOR TOLERANCES

A level survey of the existing surface is recommended prior to the application of FLOWMENT RAPID 560. In order to achieve the required tolerance, deviations in the existing surface can be levelled with FLOWMENT RAPID 560 prior to the application of FLOWMENT RAPID 560.

PACKAGING

FLOWMENT RAPID 560 is supplied as premixed powder in 25 kg bags.

STORAGE

Storage life is 6 months if product is kept in sheltered and dry place.

CLEANING

All tools and equipment should be cleaned promptly with water.

TECHNICAL SERVICE

For further details and advices on the products and application please contact Sales Representatives from Plasters & Mortars Division, Eastern Pretech Pte Ltd.

*Note: Because it is not possible to give specific instructions for the various site conditions or to control the applications, the information on this Technical Data Sheet is for general guidance only.