

CEMFILL 103

Pump Applied Base Screed

Description

CEMFILL 103 is designed as a pump applied levelling base screed for use under CEMSMOOTH or resin based materials where thicker applications are required when upgrading and innovating new and existing internal floors. CEMFILL is designed for application between 15 and 100 mm. CEMFILL is self-smoothing, dimensionally stable and fast drying. It is suitable for use in a wide range of commercial environments. CEMFILL is also protein free. Typically CEMFILL can be pumped up to 2000 m² per day. Alternatively, coverage of 600m² can be achieved when hand applied dependant upon man power, thickness applied and equipment used.

Technical Data

Flow properties using 50cc flow ring:	120 mm
Workability:	10 - 15 minutes
Vicat setting time @ 20°C :	2 hours
Foot traffic:	1 - 3 hours
Light traffic:	24 hours
Compressive strength (N/mm ²)	
BS6319 Part 3: 1983	10.0
Flexural strength @ 28 days (N/mm ²)	
BS6319 Part 3: 1990	
28 days:	>3.0
Shrinkage (µm/m) at 28 days	
ASTM C490-00a:	<400
Application thickness:	15 - 100mm
Bond strength to concrete (N/mm ²):	>3

Surface Preparation

Concrete and sand/cement screeds must be sound, dry and fully cured (not subject to shrinkage) and any laitance or service treatments must be removed by mechanical means such as grit blasting. The surface tensile strength of the substrate should be a minimum of 1.0 N/mm². If an impervious coating, screed or floor covering is to be used the concrete substrate should be below 75% RH alternatively CEMART DPM should be applied. The temperature of the floor must be maintained above 10°C throughout the application and drying of the CEMFILL.

Priming

Application on to sand/cement screeds, concrete and other porous substrates: first seal the prepared surface by applying one coat of CEMPRIME diluted with 5 parts potable water and allow to dry. Prime the sealed surface by applying a further coat of CEMPRIME diluted with 3 parts potable water and brush well into the surface. The primer must be allowed to dry for the application of CEMFILL. Application on to all other surfaces included Surface Damp Proof Membranes (SDPM) and non-absorbent surfaces: Prime with neat NEOPRENE PRIMER to ensure that good adhesion is obtained.

Mixing

HAND APPLICATION:

Use a power-whisk fitted in a heavy-duty slow speed electric drill. Mix in the proportion of 25 kg of powder to 4.25 – 4.5 litres of potable water. Pour the water in to a suitable size bucket and gradually add the powder while stirring, until a smooth, lump free consistency is achieved.

PUMP APPLICATION:

Mix the powder and water according to the method recommended by the pump manufacturers. In the case of pumps having a continuous water feed adjust the rate of water flow until the mix is a fluid, uniform grey liquid with no surface separation, producing a flow of approximately 120 mm using a 50 cc flow ring.

Application

Pour or pump the mixed material on to the prepared surface and allow to obtain a smooth finish. The use of a spiked roller will help eliminate entrapped air and smooth out flow lines. Apply at thickness of between 15 mm to 100 mm in one pass. Apply CEMSMOOTH over CEMFILL when it is at least 24 hours old and the surface is primed with CEMPRIME diluted with 3 parts water. Where materials are to be applied over the surface of the hardened CEMFILL, it is good practice to STR the surface prior to carrying out subsequent treatments.

Coverage

A 25 kg bag using 4.5 litres of clean water will yield 13.5 litres. A 25 kg bag of CEMFILL will cover approximately 0.90 m² @ 15mm thickness.

Precautions

Do not place when the substrate temperature is below 10°C or when the ambient temperature is 10°C and falling. Protect from frost. Do not exceed the maximum recommended water content and only use potable cold water. This product is not recommended for external use or situations where water may come into direct contact with the cured material.

Health and Safety

Avoid contact of the material with skin and eyes. Wear appropriate gloves, overalls and eye protection during use. Please refer to material Safety Data Sheet for additional information, for specific advice regarding any aspect of this product, please consult our Technical Section.

Cleaning

All equipment should be cleaned with water immediately after use.

Pack Size

CEMFILL is supplied in 25 kg bags.

Shelf Life

9 months in unopened bags and stored under good conditions.

General Guidance

This Data Sheet is for general guidance purposes only and may contain information that is inappropriate for certain conditions of use. Accordingly, all recommendations and suggestions are made without guarantee. Further information is available from our Technical Department. Please consult our Sales Department to confirm that this Data Sheet is the current issue.