



MultiScreed CSL 450 High-Strength, Self-Leveling Cementitious Underlay

Description:

MultiScreed CSL 450 is a one-part cementitious floor levelling screed and repair mortar for industrial floors that hardens rapidly. It provides a high-strength, low-maintenance, highly mechanical and abrasion-resistant smooth screed that is suitable as a finished surface or a base layer for resin-based coatings.

Characteristics:

- Self-leveling.
- Usable after 24 hours' hardening.
- Low maintenance..
- Suitable for use with underfloor heating systems
- Long time period for surface finishing: more than 60 minutes.
- Pre-batched, one-part mortar that only needs the addition of water.
- Easy to apply and lay as a monolithic flat floor finish or on a slope.

Uses:

- MultiScreed CSL 450 is used as a:
 - Bonded, unbonded and floating screed wearing layer.
 - Final trafficable screed wearing layer.
 - Repair and levelling screed for large-area industrial floors.
 - Bonded, unbonded and floating screed base layer for resin top coats.

Surface Preparation:

The base slab or screed should be sound with a minimum thickness of 40 mm and with a minimum compressive strength of 25 MPa. All surfaces must be clean, mechanically sound and free of laitance, dust, grease and oil. Vacuum abrasive blast cleaning is the preferred method of surface preparation. Wet grinding followed by vacuuming may also be used. All holes in the concrete or screed which are deeper than 10 mm should be repaired.

Priming:

Concrete surfaces should be primed with Multiprime AC. Apply the diluted Multiprime AC onto the floor surface by means of a brush and leave it to dry before applying MultiScreed CSL 450. Priming improves the adhesion of the MultiScreed CSL 450 to concrete, prevents formation of air bubbles and reduces water absorption into the sub floor. For information on how to prepare impermeable concrete bases or floors other than concrete floors, contact Multitech Technical Service Department.

Typical Physical Properties

Compressive Strength (28 days)	30 N/mm ²
Flexural strength	9 N/mm ²
Adhesive to concrete (28 days)	>1 N/mm ²
Shrinkage	<0.06%
Maximum particle size	0.5 mm
Protein content	Nil
Thickness (pumped)	4 – 20 mm
Thickness (hand applied)	0 – 20 mm
Laying temperature	5 – 25°C
Working time at 20°C	20 mins
Walk on time at 20°C	2 – 4 hrs
Over coating time (20°C, 50% RH) 10 mm thick	24 hrs
Flow ring (65 mm dia x 40 mm high)	Target 230 – 250 mm
Density	1.5 kg/m ³

Mixing:

Correct mixing and proportioning of the MultiScreed CSL 450, is essential for good results. Mechanical mixing using a heavy duty drill and helical mixer, or continuous mixer/pump is the recommended mixing method. Mix with clean potable water at typically 4.5 to 5.5 litres per 25kg bag for a minimum of 60 seconds. Working temperature of the mix must be in the range of 5 - 25°C. Use warm water in cold conditions. Excess water may lead to a friable surface and will reduce the strength of the MultiScreed CSL 450. Do not mix more MultiScreed CSL 450 than can be applied in 20 minutes.

Application Method :

Pour or pump the mixture over the concrete surface. For pumped application, ensure the continuity of electricity and water supplied is secured. Pump the MultiScreed CSL 450 onto the floor in a continuous operation, feeding fresh material into a wet edge. MultiScreed CSL 450 will level out to a smooth, even finish. Where necessary, release small air bubbles from the newly laid screed with a spiked roller. This practice must be adopted within 5 minutes of application to avoid interfering with the final leveling properties.





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Curing:

Ensure the MultiScreed CSL 450 is not subject to draughts during the first 6 hours of curing as this may lead to cracking and crazing. Tape up doorways with polythene if necessary to prevent air movement during application. Subsequently ensure the room has sufficient ventilation to allow the screed to dry. Ensure adequate protection from other trades and traffic after installation. Prevent contamination by following trades e.g., plastering, including water spillage.

Cleaning :

Tools, brushes and mixing equipment should be cleaned with water immediately after use and before material has set. Hardened material can only be removed by mechanical means.

Storage:

For application above 40°C we recommend adopting the following guidelines:

Store unmixed materials in a cool preferably air conditioned environment. Avoid exposure of mixed & unmixed materials to direct sunlight. Use iced water for mixing. Keep equipment that will be in contact with the product cool and away from direct sunlight. Avoid application during the hottest time of day.

Packaging:

MultiScreed CSL 450 is supplied in 25 kg bags.

Shelf Life :

MultiScreed CSL 450 has a shelf life of six months if kept in a dry cool place in the original packaging. In more extreme conditions this period might be shortened.

Hardening and Drying Times:

MultiScreed CSL 450 may be walked on after 4 - 6 hours, and may be sanded at joints if required 24 hours after application. The floor covering can be installed after 24 hours, depending on the type of finish, density and dryness of MultiScreed CSL 450, screed and ambient conditions. Before installation of floor coverings, the requirements for critical moisture contents for particular floor coverings have to be observed.

Limitations:

Internal air and floor temperatures must exceed + 5°C. The RH of the concrete floor must not exceed 95%, but where moisture sensitive floor coverings are to be laid soon after MultiScreed CSL 450 application, the RH of the base must be below 75% as per BS 8203.

Disclaimer:

The information supplied in our literature or given by our employees is based upon extensive experience and together with that supplied by our agents or distributors, is given in good faith in order to help our customers. Our company policy is one of continuous research and development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products. However, as we have no control over site conditions or the execution of the work. We accept no liability for any loss or damage which may arise as a result thereof.

Health & Safety:

Always use appropriate PPE including gloves, goggles and a barrier cream to avoid contact with skin and eyes. Should contact with skin or eyes occur, wash immediately with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately. Do not induce vomiting. Avoid inhalation and ensure adequate ventilation or suitable respiratory equipment if working in confined spaces. Do not expose products to fire or naked flames under any circumstances.

