

Polymer-Modified Cementitious Floor Screed Up to 100 mm

DESCRIPTION

CasTech Floor Screed 100 is a factory-preblended, polymer-modified cementitious screed formulated with Portland cement, selected graded aggregates, and performance-enhancing additives.

The product is supplied ready for mixing with water and is designed to produce durable, heavy-duty floor surfaces. It may be placed in a single application at thicknesses up to 100 mm and is suitable as a floor screed, levelling layer, or underlayment beneath compatible cementitious and epoxy flooring systems.

TYPICAL USES

- Construction of cementitious floor screeds
- Levelling floors before tile installation
- Replacement or reinstatement of old and damaged concrete floors
- Underlayment beneath compatible cementitious or epoxy-based flooring systems

ADVANTAGES

Key advantages:

- Factory-preblended for consistent quality and performance
- Polymer-modified formulation for enhanced durability
- Suitable for heavy-duty flooring applications
- Reduced shrinkage when mixed, placed, and cured correctly
- Can be applied in a single layer up to 100 mm
- Requires only the addition of clean water on site

MIXING

Use clean mixing equipment and potable water. Measure 5.5–6.5 litres of water for each 50 kg bag.

Add the powder gradually to the measured water and mix mechanically for 3–5 minutes until a homogeneous, lump-free consistency is obtained.

Do not exceed the recommended water dosage. In hot weather, chilled mixing water may be used to help maintain workability. Mix only the quantity that can be placed within the stated working time.

TYPICAL PROPERTIES

Appearance	Grey cementitious powder
Binder	Portland cement with selected polymers
Aggregate size	0-10 mm
Water requirement	5.5-6.5 L per 50 kg bag
Water/powder ratio	Approx. 0.11–0.13 by weight
Wet density	Approx. 2.19 kg/L
Working time	Approx. 45 minutes
Application thickness	Up to 100 mm
28-day compressive strength	Approx. 40 N/mm ²
Initial curing period	2-3 days / approx. 72 hours
Packaging	50 kg bag
Shelf life	12 months

The values above are typical source values and may vary with water addition, temperature, mixing, substrate condition, placement, compaction, curing, and test conditions.

APPLICATION INSTRUCTIONS

Apply **CasTech Floor Screed 100** in accordance with the approved project method statement. Correct substrate preparation, controlled water addition, compaction, finishing, and curing are essential for consistent performance.

SURFACE PREPARATION

General requirements

The concrete substrate shall be sound and free from dust, laitance, loose particles, oil, grease, curing compounds, sealers, and other contaminants that may impair adhesion.

Cleaning and repair

Remove oil or grease contamination by an appropriate approved method. Mechanically remove weak material, curing compounds, and sealers. Repair cracks, holes, and surface defects before screed placement.

Substrate condition

The source TDS requires the prepared surface to be dry before application. Confirm the approved bonding or separation method for the intended screed construction with the CasTech Technical Department.

PLACEMENT AND FINISHING

Placing

Distribute the mixed screed uniformly over the prepared area and spread it to the specified level and thickness. Use suitable screed rails, levelling tools, or a notched trowel as required by

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the application.

Compaction

Compact and tamp the material thoroughly using a wooden or aluminium float to minimise voids and ensure a dense, uniform screed layer.

Finishing

Finish with a steel trowel to achieve the required smoothness and close the surface. A textured finish may be produced using a suitable roller or brush where specified.

Protection

Protect freshly placed screed from rapid drying, direct sunlight, strong wind, rain, contamination, and early traffic.

CURING

Apply standard curing procedures for a minimum of 2–3 days. Where a membrane-curing system is specified, apply a suitable CasTech curing compound immediately after final finishing in accordance with its product instructions.

WORKABILITY

Typical working time is approximately 45 minutes at 23–25 °C. Higher temperatures may reduce the available working time.

Do not add extra water to material that has begun to stiffen or set.

CLEANING OF TOOLS

Clean tools and equipment immediately after use with clean water. Hardened material can only be removed mechanically.

COVERAGE AND YIELD

Material consumption depends on the required thickness, substrate profile, compaction, and wastage. Refer to the important technical note regarding the yield information in the source TDS.

PACKAGING

- 50 kg moisture-resistant paper bags containing aggregate up to 10 mm

SHELF LIFE

12 months from the date of manufacture when stored unopened in the original packaging under the recommended conditions.

STORAGE

Store under cover in a cool, dry, and well-ventilated warehouse. Keep bags off the ground on pallets and protect them from moisture, direct sunlight, and excessive temperatures.

Use stock rotation and do not use material from damaged bags or material that has hardened because of moisture exposure.

LIMITATIONS

- Do not exceed the recommended water dosage.
- Do not retemper material after it begins to set.
- Protect freshly placed screed from premature drying and adverse weather.
- Confirm the approved construction method for bonded, separated, or other screed applications.
- Allow adequate curing and drying before applying tiles, coatings, or other finishes.
- Verify compatibility with non-standard substrates and flooring systems before application.

HEALTH AND SAFETY

CasTech Floor Screed 100 contains cement and becomes alkaline when mixed with water. Avoid contact with skin and eyes. Wear suitable gloves, protective clothing, safety goggles, and a dust mask during handling, mixing, and application.

In case of eye contact, rinse immediately with plenty of clean water and seek medical attention. If swallowed, seek medical advice immediately. Refer to the latest Safety Data Sheet for detailed information.

Dispose of product waste and empty packaging in accordance with local rules and regulations.

STANDARDS

The source TDS references BS 1201, BS 882, and DIN 4226. Suitability and applicability of these references shall be confirmed against the current project specification before external submission.

COMPATIBILITY

- Concrete and compatible cementitious substrates
- Tile finishes after adequate curing and drying
- Compatible cementitious flooring systems
- Compatible epoxy-based flooring systems after preparation
- Moisture barriers and heating systems only after project-specific compatibility confirmation

IMPORTANT TECHNICAL NOTE

The source TDS states a 50 kg pack size and a water requirement of 5.5–6.5 L per 50 kg bag. However, its mixing section separately refers to a 55 kg bag, and its yield table states 25.5–26.5 L per 55 kg bag. The approved pack basis and yield shall be confirmed by the CasTech Technical Department before

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external issue.

TECHNICAL SUPPORT

CasTech provides on-site assistance and consulting services

on projects when requested. Technical data sheets on other CasTech products and guidance on their use are available on request.

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