

Product Data Sheet

CasTech Floor SL 2-4

Nov-2025, Ver. 01.01



Solvent-Free High-Build Self-Levelling Epoxy Flooring (2-4 mm)

DESCRIPTION

CasTech Floor SL 2-4 is a three-component, high-performance, solvent-free self-levelling epoxy flooring system comprising epoxy resin, hardener, and selected silica filler. It is designed for application at a 2-4 mm thickness on correctly prepared cementitious floors.

After curing, it forms a smooth, impervious, and seamless floor finish with high abrasion, impact, mechanical, and chemical resistance. The system provides high filling capability in a single application and is suitable for demanding industrial and commercial environments.

TYPICAL USES

- Chemical manufacturing plants
- Car parks, workshops, and maintenance areas
- Warehouses, industrial floors, and production assembly areas
- Pharmaceutical plants and laboratories

ADVANTAGES

Key advantages:

- Solvent-free, self-levelling three-component system
- High-build application from 2 mm to 4 mm
- Excellent chemical and abrasion resistance
- Smooth, impervious, seamless, and easy-to-clean finish
- High impact and mechanical resistance

COMPATIBILITY

CasTech Floor SL 2-4 is suitable for sound, properly prepared concrete and cementitious screeds. Porous or doubtful substrates shall be primed with CasTech Coat EP. It is not suitable for asphalt, PVC tiles or sheets, weak or friable concrete, or substrates subject to rising damp.

TYPICAL PROPERTIES

System	Three-component solvent-free self-levelling epoxy
Application thickness	2-4 mm
Specific gravity at 25°C	1.80 ± 0.05 - ASTM D1475
Pot life at 25°C	>45 minutes - ASTM D2471
Surface dry at 25°C	Approximately 24 hours
Light traffic at 25°C	Minimum 12 hours
Full cure at 25°C	7 days
Compressive strength	>65 N/mm ² - ASTM D579
Chemical resistance	Resistant - ASTM D543
Theoretical coverage	2 L/m ² at 2 mm thickness
Application temperature	+5°C to +35°C
Packaging	27 kg three-component kit
Shelf life	12 months
Number of components	Three
Kit size	27 kg

Typical values are subject to approximately 5-10% tolerance, as stated in the source technical data.

Theoretical consumption and performance depend on substrate preparation, temperature, mixing, installation thickness, and workmanship.

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

General requirements

The substrate shall be sound, clean, dry, and free from oil, grease, laitance, loose material, paint, mortar splashes, curing compounds, and any contamination that may impair adhesion. Mechanical preparation by grinding, light scabbling, or grit/captive blasting is recommended, followed by industrial vacuum cleaning to remove all dust and debris.

New concrete and screeds

New cementitious substrates shall be at least 28 days old and have a moisture content below 5% before application.

Existing floors

Remove oil and grease penetration with a suitable chemical degreaser or hot compressed-air treatment. Repair damaged, irregular, or defective areas with an appropriate CasTech repair

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product before applying the flooring system.

PRIMING

Sound, untreated, good-quality non-porous substrates may not require priming. Porous or doubtful substrates shall be primed with CasTech Coat EP by brush or roller in accordance with its Product Data Sheet.

Allow the primer to reach the specified overcoating condition before placing **CasTech Floor SL 2-4**. Remove any dust or surface contamination before continuing.

MIXING

Mix Component A separately with the colour pack for approximately 2 minutes using a heavy-duty, slow-speed drill fitted with a suitable paddle at 200–300 rpm.

Add Component B (hardener) to Component A and mix for a further 2–3 minutes until homogeneous. Slowly add Component C (filler) while mixing and continue until a uniform, lump-free consistency is obtained.

Complete kits only

Mix complete kits only. Do not part-mix. Avoid excessive mixing and air entrainment. Once mixed, use the material within its stated pot life.

APPLICATION

Pour the mixed material onto the prepared and primed surface. Spread immediately with a squeegee or notched trowel to achieve the required thickness between 2 mm and 4 mm.

De-aeration and levelling

Allow the product to level naturally, then pass a spiked roller over the wet material to release entrapped air and assist uniform distribution.

CURING AND RETURN TO SERVICE

Allow a minimum of 12 hours at 25°C before light foot traffic. Allow the system to cure fully for 7 days before exposure to full mechanical, chemical, or environmental service.

COVERAGE

Theoretical consumption is approximately 2 L/m² at 2 mm thickness. Actual consumption will vary with substrate profile, application thickness, surface condition, and wastage.

LIMITATIONS

- Do not apply below +5°C or above +35°C.
- Do not apply to asphalt, PVC tiles or sheets, weak or friable concrete.
- Do not apply to surfaces affected by rising damp or relative humidity above 75%.
- Do not thin the product with solvent or any other material.
- Use the mixed material within its pot life and discard material that has begun to set.
- Do not part-mix under any circumstances.

HOT-WEATHER CONDITIONS

Where ambient conditions exceed 40°C, store unmixed materials in a cool, preferably temperature-controlled area, and protect all materials and equipment from direct sunlight. Avoid application during the hottest part of the day and consult CasTech Technical Support before proceeding.

CLEANING

Clean tools and equipment immediately after use with a suitable solvent. Hardened material can only be removed mechanically.

STORAGE

Store the product in a cool, dry, and shaded warehouse, protected from direct sunlight and extreme temperatures. In tropical conditions, cooled storage is recommended.

Excessive humidity and prolonged ultraviolet exposure may reduce shelf life. Keep all containers tightly closed until use.

PACKAGING

CasTech Floor SL 2-4 is supplied as a 27 kg pre-proportioned three-component kit:

- Component A - Resin
- Component B - Hardener
- Component C - Filler

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SHELF LIFE

12 months from the date of manufacture when stored unopened under the recommended warehouse conditions.

HEALTH AND SAFETY

Wear suitable protective clothing, safety goggles, and chemical-resistant gloves when handling and applying this product. Avoid contact with skin and eyes and maintain adequate ventilation.

If the product contacts the skin, wash immediately with soap

and plenty of clean water. In case of eye contact, rinse immediately with clean water and seek medical attention.

Refer to the latest Safety Data Sheet for detailed handling, first-aid, transport, and disposal information.

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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