Du Cem SL

TECHNICAL DATA SHEET (TDS)

Ducon Polymer Flooring

Self-Leveling Cementitious Flooring Compound (Underlayment)

Description

Du Cem SL is a one-component, cement-based self-leveling compound for general leveling work. Mixed with clean water only, it flows freely across concrete and cement screed floors, fills hollows and irregularities, and hardens by hydration to a flat, smooth and strong surface with low tension. It is applied in layers of 3–40 mm, or up to 60 mm with added aggregate, before the final floor finish is installed.

Uses

- Leveling and smoothing of concrete floors and cement screeds, in new construction and refurbishment
- Base layer before epoxy and PU floor coatings (resin coatings of at least 2 mm recommended)
- Underlayment for ceramic tiles, vinyl, linoleum, carpet and wood flooring
- Over underfloor heating systems
- Interior use; exterior use only when covered by a floor finish

Benefits & Advantages

- Smooth, self-leveling application
- Mix with water only – drying by hydration and fast hardening
- Layer thickness 3–40 mm, up to 60 mm with aggregate
- Low tension and low shrinkage during curing
- Strength class CT-C25-F6 to EN 13813
- Suitable for castor-wheel loading (EN 12529)
- Pumpable or hand-applied
- Walkable after about 4 hours; ready for covering after about 24 hours

Product Data

Form	Grey powder, one component
Packaging	25 kg bag
Layer thickness	3–40 mm; up to 60 mm with aggregate
Mixing water	5.0–5.25 L per 25 kg bag
Consumption	Approx. 1.7 kg/m² per mm thickness
Storage	In original, unopened, undamaged bags, in dry conditions at +5°C to +30°C
Shelf life	6 months from date of production when stored correctly

Technical Data (typical values)

Property	Value
Classification (EN 13813)	CT-C25-F6
Compressive strength, 28 days	≥ 25 MPa (C25)
Flexural strength, 28 days	≥ 6 MPa (F6)
Pot life / workability	Approx. 20–30 minutes at 23°C
Walkable	Approx. 4 hours
Ready for covering / overcoating	Approx. 24 hours (layer ≤ 5 mm)
Castor-wheel loading (EN 12529)	Suitable
Application temperature	+5°C to +30°C (substrate and air)

Times measured at 23°C. Higher temperatures shorten, and lower temperatures lengthen, working and setting times. Thicker layers need longer before covering.

Coverage (per 25 kg bag)

Thickness	Approximate coverage
3 mm	4.9 m² (53 sq ft)
5 mm	2.9 m² (32 sq ft)
8 mm	1.8 m² (20 sq ft)
10 mm	1.5 m² (16 sq ft)
20 mm	0.7 m² (8 sq ft)

Coverage excludes waste and surface roughness. Measure the area, decide the thickness and calculate the material before starting.

Substrate Requirements

- A leveled floor is never stronger than its substrate. Surface tensile strength must be at least 1.0 MPa; if in doubt, carry out a pull-off test.
- The substrate must be dimensionally stable and permanently dry.
- Before moisture-sensitive floor coverings, cement screeds must have a residual moisture of ≤ 2.0 CM-% (heated screeds ≤ 1.8 CM-%).

Surface Preparation

- Remove weak and friable areas, laitance and old loose underlayment mechanically (grinding, scraping, milling or blasting).
- Repair damaged areas with a sturdy patching mortar.
- Patch cracks before or during priming, otherwise the material can flow into them and cause air bubbles or reflective cracks.
- Respect all expansion joints and joints where movement is expected, and carry them through the underlayment.

Statement of Responsibility (Disclaimer)
The technical information and application advice are based on the present state of our scientific and practical knowledge. As this information is of a general nature, no assumption can be made as to a product's suitability for a particular use or application, and no warranty as to its accuracy, reliability or completeness, either expressed or implied, is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

- Remove water-soluble adhesives mechanically. Remove water-resistant adhesives as far as possible and prime the residue.
- Clean and sand ceramic tiles; use dry cleaning methods only (vacuum, dry mop).

Priming

Apply a suitable primer evenly with a short-pile roller to reduce absorption and improve bond. Avoid overdosing that leaves puddles. Let the primer dry before applying Du Cem SL.

Mixing

Use clean water of drinking quality only – never contaminated or waste water. Put the measured water into a container and start the mixer, then add the powder to the water while stirring. Mix with a disc-type stirring paddle for about 2 minutes, allow a short maturing time, and mix again thoroughly. Never add water to the powder or add water in stages, as this changes the product's properties. For pump application, use a continuous or two-stage screed mixer-pump and check the flow regularly with a flow ring (EN 12706).

Application

- Substrate and air temperature: +5°C to +30°C.
- Do not apply in a draught. Switch off ventilation during application and for 24 hours after. Protect the fresh surface from sunshine and direct heat.
- Pour the mixed material onto the primed surface and spread it to the required thickness with a notched trowel or adjustable pin rake.
- Keep a continuous supply of mixed material and always place onto a wet edge, before the previous material starts to set. The hotter the conditions, the narrower the working front.
- If spike rolling, start within about 5 minutes of placing and do not over-roll.
- Pot life is about 20–30 minutes at 23°C.

Curing

Keep the area free of draughts, sunshine and direct heat for at least 24 hours. Low humidity increases the risk of shrinkage cracks; high humidity reduces it.

Limitations

- Du Cem SL is a leveling underlayment, not a wearing surface. Always cover it with a final floor finish.
- Exterior use only when covered by a floor finish.
- Do not add sand, cement or other materials, except clean aggregate for layers over 40 mm.
- Check residual moisture before installing moisture-sensitive floor coverings or resin coatings.

Cleaning

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

Health & Safety

Contains cement, which is alkaline when wet. Wear gloves, eye protection and a dust mask, and use knee pads when kneeling. Ensure good ventilation. In case of contact with skin or eyes, rinse immediately with plenty of clean water and seek medical advice. Keep out of reach of children.

Technical Support

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