

CHEMFIT LEVEL 100 T

One Part, Polymer Modified, Pumpable Self-leveling Fast Hardening Cementitious Underlayment

PRODUCT DESCRIPTION

ChemFit Level 100 T is a one part, polymer modified, pumpable self-leveling and fast hardening cementitious underlayment designed for interior use. It is applied over concrete, cement/sand screeds, and other rigid subfloors to create a smooth, flat, and level surface suitable for receiving final floor coverings such as ceramic tiles, stone, clay tiles, carpets, and wood flooring. The advanced formulation ensures rapid strength gain, allowing foot traffic and floor covering installation within a short period.

PRIMARY APPLICATIONS

ChemFit Level 100 T is recommended for use in conditions such as:

- Preparation of interior substrates for ceramic, stone, and clay tile installation
- Surface leveling prior to carpet or textile flooring installation
- Underlayment for wood, laminate, and parquet flooring
- Leveling of concrete subfloors in residential, commercial, and light industrial buildings
- Smoothing of irregular or spalled substrates prior to final finishing

KEY FEATURES AND BENEFITS

- **One part** – Just add water; ensures consistent quality and ease of use
- **Polymer modified** – Enhanced adhesion, flexibility, and durability
- **Pumpable** – Suitable for large area applications with continuous mixing/pumping equipment
- **Self-leveling** – Flows and levels with minimal manual effort
- **Fast hardening** – Rapid strength gain for quick floor covering installation
- **Excellent adhesion** – Strong bond to properly prepared concrete and cementitious substrates
- **Low shrinkage** – Minimizes cracking and curling
- **Good coverage** – 1.5 ± 0.1 kg/m² per mm thickness
- **Chloride free** – Safe for use over reinforced concrete

PHYSICAL AND CHEMICAL PROPERTIES

| Property | Specification |
|--------------------------------|---|
| Appearance | Fine, free-flowing powder |
| Color | Gray |
| Form | Powder (one component) |
| Basis | Cementitious with polymer modification |
| Maximum Aggregate Size | < 0.5 mm |
| Density (fresh mortar) | ~2.0 kg/L |
| Mixing Water Requirement | 5.0 – 5.5 L per 25 kg bag |
| Pot Life (at 20°C) | 20 – 30 minutes |
| Flow Time (at 20°C) | 5 – 10 minutes |
| Initial Setting Time | 45 – 60 minutes |
| Light foot traffic | 2 – 3 hours |
| Ready for final floor covering | 4 – 8 hours (depending on thickness and conditions) |
| Full cure | 7 days |
| Application temperature | +5°C to +30°C |
| Substrate temperature | +5°C to +30°C |
| Relative humidity | < 85% |

PACKAGING AND STORAGE

Packaging:

- 25 kg bags with moisture barrier

Storage:

- Store in original sealed bags in a cool, dry location between +5°C and +30°C
- Protect from moisture, humidity, and direct sunlight
- Stack pallets off the ground on wooden pallets
- Keep bags intact and sealed until ready for use

Shelf life: 12 months from date of manufacture when stored properly

DOSAGE AND COVERAGE RATES

Coverage: 1.5 ± 0.1 kg of powder per square meter per millimeter of thickness

| Thickness | Consumption per m ² (approx.) | Yield per 25 kg bag (approx.) |
|-----------|--|-------------------------------|
| 1 mm | 1.5 kg | 16.7 m ² |
| 2 mm | 3.0 kg | 8.3 m ² |
| 3 mm | 4.5 kg | 5.6 m ² |
| 4 mm | 6.0 kg | 4.2 m ² |
| 5 mm | 7.5 kg | 3.3 m ² |
| 6 mm | 9.0 kg | 2.8 m ² |
| 8 mm | 12.0 kg | 2.1 m ² |
| 10 mm | 15.0 kg | 1.7 m ² |

NOTE: Coverage is approximate; varies with substrate porosity and surface profile. Theoretical values are based on standard substrate conditions.

APPLICATION GUIDELINES

Surface Preparation:

- Substrate must be sound, clean, dry, and free from dust, oil, grease, laitance, curing compounds, loose particles, and any contaminants
- Mechanically abrade (grinding, shot blasting) to achieve open texture
- Fill deep holes and cracks > 5 mm with suitable repair mortar before leveling
- Vacuum thoroughly to remove all dust
- Apply compatible primer (e.g., ChemFit Primer G) to seal porous substrates and improve adhesion
- Allow primer to dry completely before applying underlayment

Mixing:

- Add 5.0 – 5.5 liters of clean, potable water to a clean mixing container
- Slowly add the entire 25 kg bag while mixing with a low-speed drill (400-600 rpm)
- Mix for 2-3 minutes until smooth, lump-free consistency
- Allow to stand for 1 minute, then remix for 30 seconds
- For large areas: use continuous mixing and pumping equipment as per manufacturer's guidelines
- Use within pot life (20-30 minutes at 20°C)

Application:

- For small areas: pour mixed material onto prepared substrate and spread with notched trowel or spiked roller
- For large areas: pump and spread using screed pump and smoothing bar
- The material will self-level naturally
- Use a spiked roller to remove trapped air bubbles
- Maintain a continuous working edge; avoid cold joints
- Protect from drafts, direct sunlight, and rapid drying during setting

Curing:

- Protect from water and mechanical damage during first 24 hours
- Light foot traffic after 2-3 hours (at 20°C)
- Ready for floor covering installation after 4-8 hours (at 20°C)
- For thick layers (>10 mm), extend drying time to 24-48 hours
- Do not apply below +5°C or if freezing expected within 24 hours

HEALTH AND SAFETY

ChemFit Level 100 T is alkaline and may cause severe eye and skin irritation. In fresh, wet state, the product is caustic. If eye contact occurs, rinse immediately with plenty of water for 15-20 minutes and seek medical attention. For skin contact, wash immediately with soap and water; remove contaminated clothing. If swallowed, do not induce vomiting; rinse mouth and drink water, then seek medical attention. Use gloves, safety glasses, and protective clothing during handling. Avoid inhalation of dust – use dust mask if ventilation is poor. Refer to the Safety Data Sheet for detailed information.

CLEANG OF TOOLS

Clean all mixing equipment, trowels, and spillages with water immediately after use. Dried material requires mechanical removal.

APPROVALS AND STANDARDS

ChemFit Level 100 T complies with the following standards:

- **EN 13892-2** – Methods of test for screed materials – Determination of flexural and compressive strength
- **EN 13813** – Screed material and floor coatings
- One part, polymer modified, pumpable self-leveling fast hardening cementitious underlayment
- Suitable for providing a suitable substrate for ceramic, stone, clay tiles, carpets, and wood flooring
- **ISO 9001** – Quality management system certified

LIMITATIONS

- For interior use only
- Do not apply on substrates with rising moisture
- Not suitable as a final wearing surface under heavy traffic without protective coating
- For exterior applications, protect with suitable sealant or coating
- Maximum single layer thickness: 10 mm

LEGAL NOTES

All technical data provided in this Product Data Sheet is based on laboratory testing under controlled conditions. Actual field performance may vary due to differences in substrates, application methods, site conditions, and environmental factors. ChemFit makes no warranty of merchantability or fitness for a particular purpose. Users shall conduct their own trials to validate product suitability for the intended application. ChemFit reserves the right to modify product specifications without prior notice. For the most current documentation, request the latest Product Data Sheet and Safety Data Sheet from ChemFit.

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