

FUERZA CEMTOP-SL

SELF-LEVELLING TRAFFIC GRADE WEARING SURFACE

FUERZA Cemtop-SL is a **polymer-modified cementitious self-levelling floor topping system** engineered for application at thicknesses ranging from **feather edge to 19 mm**. The advanced latex-modified formulation provides enhanced **mechanical performance, adhesion, and resistance to traffic-induced wear**, ensuring durable service under demanding conditions. The material is designed for application at a **self-levelling consistency** and is suitable for use on **dry, damp, and wet substrates**, subject to appropriate surface preparation.

PRIMARY APPLICATIONS

- Suitable for application over **sound interior concrete substrates** requiring surface correction or rehabilitation.
- Ideal for **levelling uneven floors** and restoring worn, deteriorated, or irregular concrete surfaces.
- Suitable for **industrial warehouses, manufacturing facilities, offices, docks, rehabilitation projects, and renovation or overlay applications** on existing concrete floors.
- Effective for **rapid repair and resurfacing** of worn or defective flooring.
- Suitable for applications requiring **thin-section levelling from feather-edge to 19 mm thickness**.
- Applicable in **damp and wet-area environments**, subject to suitable substrate preparation.

KEY ADVANTAGES

- Provides **high-strength adhesion** to properly prepared concrete substrates.
- Exhibits **excellent abrasion and traffic resistance**, including under forklift and heavy wheeled traffic.
- **Self-levelling and highly flowable formulation** facilitates rapid placement and produces smooth, uniform floor surfaces.
- **Pumpable through conventional application equipment**, enabling efficient installation over large areas.
- Provides effective levelling and reprofiling from **feather-edge to 19 mm** in a single application.
- **Reduces or eliminates conventional finishing operations**, accelerating installation and reducing labour requirements.
- Enables **rapid rehabilitation of existing floors** with minimal disruption to operations.

TECHNICAL INFORMATION

COMPRESSIVE STRENGTH (ASTM C-109 50 mm cubes)

<u>Age</u>	<u>Strength</u>
1 day	2,400 psi (17 MPa)
3 days	2,900 psi (20 MPa)
7 days	4,000 psi (28 MPa)
28 days	5,500 psi (38 MPa)

BOND STRENGTH (ASTM C-1042)

<u>Age</u>	<u>Strength</u>
14 days	09 MPa

ABRASION RESISTANCE (CHAPLIN ABRASION DEVICE-15 MINUTES)

5,000 psi (35 MPa) concrete	3.78 mm
FUERZA Cemtop-SL	0.17 mm

DIRECTIONS FOR USE

Surface preparation:

New Concrete: Where an epoxy bonding system is used, the concrete substrate must be at least **28 days old**. When a latex bonding agent is employed, the concrete may be a minimum of **3 days old**, provided the surface is adequately textured at the time of placement to develop a sound mechanical bond. If the new concrete has not been finished with an appropriate surface profile, prepare it in accordance with the requirements for existing concrete.

Existing Concrete: The substrate must be **clean, sound, and mechanically profiled**. Remove all oil, grease, dirt, debris, coatings, curing compounds, sealers, laitance, and unsound concrete. Mechanical preparation should be carried out using suitable equipment such as a **scabblers, bush hammer, shot-blasting machine, or scarifier**, producing a minimum surface profile of approximately **3.2 mm** and exposing the coarse aggregate. Following mechanical preparation, remove all residual dust and debris by **industrial vacuuming or high-pressure water cleaning**.

Acid Etching: Chemical acid etching should only be considered where mechanical preparation is impractical and should preferably be undertaken by contractors experienced in this procedure. Following etching, all reaction salts and residues must be thoroughly removed by **high-pressure water washing**, and the substrate must be allowed to dry completely. Mechanically prepared surfaces generally provide a stronger bond than acid-etched substrates.

The prepared concrete must exhibit an **open, mechanically profiled surface** with all curing compounds, sealers, and other bond-inhibiting materials completely removed.

Joints & edges:

Perimeter edges should be **saw-cut to approximately 6.3 mm deeper than the specified topping thickness** and mechanically notched to provide positive mechanical interlock. A wedge-shaped edge recess may be formed using a suitable hand-held chipping hammer. Existing movement and expansion joints must be continued through the topping by **saw-cutting or installing suitable divider strips**. Cracks wider than **1.6 mm** should be routed to approximately **6 mm wide × 6 mm deep** before application of the topping material.

Bonding:

Following substrate preparation, prime the entire application area using either the **FUERZA epoxy bonding system** or **FUERZA SBR bonding slurry**. Where FUERZA Cemtop-SL is expected to experience **wheeled or forklift traffic**, the FUERZA epoxy system is recommended to provide enhanced bonding performance. Mixing and application should be carried out in accordance with the relevant technical data sheet. FUERZA Cemtop-SL must be placed onto the primer while it remains **wet or tacky and before curing**. The bonding primer is supplied separately.

Mixing:

For small quantities, use a **low-speed drill fitted with a suitable Jiffy-type mixing paddle**. For larger applications, employ standard **grouting or underlayment mixing and placement equipment**. Accurately measure the required quantity of water according to the batch size, then gradually introduce the dry material. Mix continuously for a minimum of **3 minutes** until a homogeneous, lump-free consistency is achieved. Transport the mixed material promptly to the application area and place immediately.

Placement:

FUERZA Cemtop-SL should be placed **continuously and systematically** to achieve a uniform, seamless surface. Begin at one corner and discharge a continuous flow along one edge of the prepared area, maintaining a wet edge and back-lapping adjacent sections as soon as practicable. **Spiked rollers, notched squeegees, trowels, and smoothing tools** may be used where necessary to facilitate uniform distribution, de-aeration, and surface control.

Finishing:

FUERZA Cemtop-SL is formulated as a **self-levelling material** and generally requires no conventional trowelling or finishing operation. Allow the material to level naturally after placement while avoiding unnecessary manipulation of the surface.

Curing:

Where FUERZA Cemtop-SL is intended to remain as the **final floor finish**, or where it will remain exposed to air for more than **3 days**, provide moist or wet curing for a minimum of **3 days** to support proper cementitious hydration and minimize premature moisture loss.

Clean-up:

Clean all tools, mixing equipment, and application accessories with **clean water immediately after use and before the material hardens**. Once hardened, the material can only be removed by mechanical means.

PRECAUTIONS & LIMITATIONS

- **Interior Applications Only:** Fuerza Cemtop-SL is formulated primarily for interior flooring applications.
- **Moisture Exposure:** Do not use in exterior environments or areas subject to **continuous moisture, standing water, or persistent water exposure**.
- **Admixtures:** Do not incorporate additional **admixtures, calcium chloride, or other modifying agents** into the product.
- **Exposed Surfaces:** For levelling applications where the finished surface will remain exposed to service conditions, **FUERZA Cemtop-SL is the recommended system**.
- **Temperature Restrictions:** Do not apply when ambient temperatures are expected to fall below **4°C within 72 hours** following placement.
- **Freeze Protection:** Protect the applied material from **freezing for a minimum of 7 days** after installation.
- **Storage:** Store the product in a **dry, protected environment**, away from moisture and adverse environmental conditions.

PACKAGING & YIELD

FUERZA Cemtop-SL is supplied in **20 kg kits**, with an approximate yield of **10 litres per kit**, subject to mixing conditions and application requirements.

