



# Cempolay Ultra Strong

## STRONG RESURFACING & SELF-LEVELLING COMPOUND

TECHNICAL SHEET NO: TDS02226 12/04/2024

### SMART ADVANTAGES

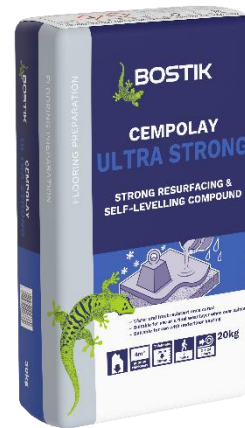
- Water and frost resistant once cured
- Suitable for use as a final wear layer when over painted
- Suitable for use with underfloor heating

### DESCRIPTION

Bostik Cempolay Ultra Strong is a strong, fast setting, protein-free smoothing and levelling compound for levelling interior subfloors prior to laying decorative floor coverings or applying painted finishes. It is also suitable for some exterior applications prior to laying ceramic tiles & natural stone and can also be used on domestic garage floors prior to over coating with a suitable floor paint.

It is ideal for smoothing and levelling prepared concrete subfloors, sand/cement screeds, stone, calcium sulphate-based screeds, mastic asphalt and firmly bonded unglazed ceramic, terrazzo & quarry tiles. It can be extended for filling holes and forming downward gradient slopes up to 5%. It is not suitable for use over existing adhesive or water-soluble residues, wooden floors, or for floors prone to structural movement, tarmac or vinyl.

It is suitable for use with warm water underfloor heating systems, provided a surface temperature of +27°C is not exceeded.



### TECHNICAL CHARACTERISTICS

<b>Colour</b>	Grey
<b>Form</b>	Dry, free flowing powder
<b>Composition</b>	Blend of cement and fillers
<b>Application temperature</b>	+5°C to +27°C
<b>Gauging liquid</b>	Water
<b>Application thickness</b>	3mm to 20mm
<b>Working times</b>	Up to 20 minutes after mixing (depending on ambient temperature and humidity)
<b>Drying times</b>	<p>Light foot traffic: approx. 2 hours</p> <p>Loose lay floor coverings: approx. 16 hours</p> <p>Bonded floor coverings: approx. 24 hours per 5mm thickness</p> <p>Ceramic tiles: approx. 3 hours (&lt;10mm thickness) or minimum 24 hours per 10mm thickness</p> <p>Textile coverings: approx. 16 hours (&lt;10mm thickness) or minimum 24 hours per 10mm thickness</p> <p>Impervious floor coverings: approx. 24 hours per 10mm thickness</p>

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	(3mm thickness at +20°C, depending on application thickness, ambient temperature and humidity)
<b>Compressive strength</b>	Typically, 20N/mm <sup>2</sup> after 28 days
<b>Flexural strength</b>	Typically, 6N/mm <sup>2</sup> after 28 days

#### COVERAGE

- Approx. 4m<sup>2</sup> per bag at 3mm thickness
- Approx. 0.6m<sup>2</sup> per bag at 20mm thickness (depending on the smoothness and absorbency of the floor surface)

#### APPLICATION

**IMPORTANT:** Before using Bostik Cempolay Ultra Strong, refer to the relevant Health & Safety Data Sheet, available at [www.bostik.com/uk](http://www.bostik.com/uk).

All phases of the application should comply with the current editions of:

- BS 8102 Code of practice for protection of below ground structures against water ingress.
- BS 5325 Code of practice for installation of textile floor coverings.
- BS 8203 Code of practice for installation of resilient floor coverings.
- BS 8201 Code of practice for installation of flooring of wood and wood-based panels.

Ensure the correct PPE is worn during use.

#### PREPARATION

- Ensure the subfloor is clean, sound and dry (<75%RH), of adequate tensile & compressive strength, free from laitance, cracks, structural defects and contaminants that may prevent adhesion (e.g., dust, oil, grease, paint, plaster, polish, some curing compounds, surface hardeners, additives and adhesive residues must be completely removed), and conforms to BS 8204 code of practice. Bostik Cempolay Ultra Strong does not tolerate any contamination.
- Any cracks or holes in the floor must be cleaned out and filled with Bostik Rapid Repair Mortar. Allow to completely dry before applying Bostik Cempolay Ultra Strong.
- The temperature of the floor and application environment must be stable and maintained between +5°C and +27°C throughout the application and drying of the compound. Do not apply externally if temperatures are likely to drop below freezing within 7 days of application. The temperature must remain above +5°C.

#### UNDERFLOOR HEATING

- Bostik Cempolay Ultra Strong can be used on substrates containing warm water underfloor heating systems. The system must be switched off 48 hours prior to, during and for 48 hours post application. To prevent rapid dehydration, wait 48 hours after installation before gradually turning up underfloor heating.
- For electrical radiant underfloor heating systems, please contact Technical Services.

#### PRIMING

- When applying Bostik Cempolay Ultra Strong, the subfloor must be primed prior to the application of the compound. See table below, refer to separate technical data sheets for primer application and drying times.
- Priming will minimise rapid absorption and will reduce the risk of pin holing and extend the working time to result in the ideal surface finish.

Porous substrates	Bostik Cempolay Universal Primer (diluted 1 : 2 with water)
Dense/non-porous substrates, including epoxy membranes	Undiluted Bostik Cempolay Universal Primer (for applications above 10mm contact Technical Services)
Calcium sulphate-based screeds	Bostik Cempolay Universal Primer (diluted 1 : 3 with water). Once dry, apply a second coat of primer (diluted 1 : 1 with water) (for applications up to 10mm max)
Mastic asphalt	Undiluted Bostik Cempolay Universal Primer (for applications up to 5mm max)

#### MIXING & APPLICATION THICKNESS

- Pour 4 litres of clean, cold water into a clean mixing bucket.
- Gradually add the 20kg bag of Bostik Cempolay Ultra Strong powder to the water, whilst continually mixing with an electric drill and mixing paddle until a smooth, lump-free mixture is obtained. This will normally be achieved after 2 minutes. Do not under mix. Optimal results can be achieved by allowing the mixed material to stand/mature for 1 minute and then mixing again for 1 minute.
- Make sure the mixing bucket is free from any unmixed material on the sides and the base.
- Note: the addition of too much water may result in separation of the compound.
- Bostik Cempolay Ultra Strong can be applied from 3mm to 20mm in a single application - 10mm maximum total thickness on sound & primed calcium sulphate-based screeds and 5mm maximum total thickness on sound & primed mastic asphalt. Contact Technical Services for further details.
- When applying at thicknesses greater than 10mm, it may be beneficial to bulk out the compound with dry, sharp sand or granite chippings.
- Do not mix more compound than you can use in 15 to 20 minutes. The mixture will remain workable for approximately 20 minutes under normal conditions. If the mix begins to stiffen before it has been spread, it must be discarded. Do not re-temper or add further water.

#### Bulked out compound:

- NOTE: Bulk out compound is not suitable for use with underfloor heating systems.
- Pour 4 litres of clean, cold water into a clean mixing bucket.
- Gradually add the 20kg bag of Bostik Cempolay Ultra Strong powder to the water, whilst continually mixing with an electric drill and mixing paddle until a smooth, lump-free mixture is obtained. This will normally be achieved after 2 minutes. Do not under mix.

- To the mixed unit add 10kg of dry, sharp sand (0mm to 4mm), or 10kg of granite chippings (3mm).
- The sand or chippings must be dry and added after mixing the water and powder together.
- The mixture will remain workable for approximately 20 minutes under normal conditions. If the mix begins to stiffen before it has been spread, it must be discarded. Do not add further water.

#### APPLICATION

- Pour the mixed material onto the prepared subfloor in a continuous operation.
- Using a steel trowel, apply Bostik Cempolay Ultra Strong evenly to the required thickness.
- Use a spiked roller to deaerate the compound and smooth out any trowel lines whilst the compound is still fluid.
- Protect surface from traffic prior to laying a floor covering. Ensure the compound is fully dry before applying a floor covering.

#### DRYING TIMES

- Drying times may vary depending upon site conditions, substrate type and installation environment.
- The drying time depends on how absorbent the subfloor is, the air humidity and both the ambient & floor temperatures.
- Thicker applications will prolong overall drying times.
- Based on good ambient conditions of +20°C and 3mm thickness, the compound can be laid directly over after the following times:

Light foot traffic	2 hours approx.
Loose lay floor coverings	16 hours approx.
Bonded floor coverings	24 hours approx. per 5mm thickness
Ceramic tiles	3 hours approx. (<10mm thickness) or minimum 24 hours per 10mm thickness
Textile coverings	16 hours approx. (<10mm thickness) or minimum 24 hours per 10mm thickness
Impervious floor coverings	24 hours approx. per 10mm thickness
Other floor coverings	Contact Technical Services

- The working and drying times of the compound will be reduced in higher temperatures and increased in lower temperatures.

#### FINISHING

- If Bostik Cempolay Ultra Strong is to be left exposed as a wearing surface on domestic garage floors, apply a suitable transparent varnish or paint to protect the compound. Externally, Bostik Cempolay Ultra Strong must be covered by ceramic tiles, slabs or natural stone.

#### CLEANING

- Clean tools and equipment with warm, soapy water immediately after use. Remove surplus compound from

surfaces whilst it is still wet. Dried and hardened compound can only be removed mechanically.

#### STORAGE

- Store and transport securely. Store for up to 6 months from date of manufacture in original, unopened packaging, clear of the ground, in cool, dry conditions within the temperature range +5°C to +25°C and out of direct sunlight. Protect from excessive drafts, frost, damp, condensation and dew.

#### PRECAUTIONS IN USE

Do not use as a substitute for a DPM. An effective membrane is required to prevent water entering the system. Protect surface from foot traffic prior to installing a floor covering. Ensure the compound is fully dry before installing a floor covering. During drying, protect the freshly applied product from strong sunlight and through draughts. Protect from rain and frost. Do not force dry the compound. Application in high temperatures may result in rapid setting and poor flow. The rapid loss of water may increase the risk of cracking.

The mix ratios and temperatures need to be followed accurately. Changing the mix ratios will disrupt the system and risk product failure.

For any application not covered, please contact Technical Services on +44 (0)1785 272625 or visit [www.bostik.com/uk](http://www.bostik.com/uk) for advice.

Recommendations and suggestions are for guidance only, since conditions of use are completely beyond our control.

For health and safety instruction, first aid measures and spillage and disposal instructions, see separate Health and Safety Data sheet for Bostik Cempolay Ultra Strong, available at [www.bostik.com/uk](http://www.bostik.com/uk).

#### PACKAGING

<b>Product codes</b>	30622970	20kg bag
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