



Cempolates Flexi-Deep

DEEP APPLICATION, FIBRE-REINFORCED SELF-LEVELLING COMPOUND

TECHNICAL SHEET NO: TDS02121 08/05/2024

SMART ADVANTAGES

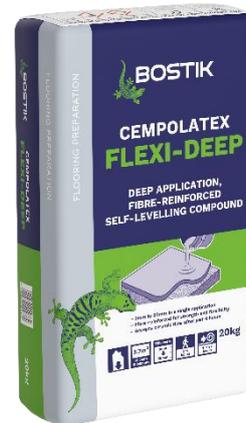
- 3mm to 60mm in a single application
- Fibre-reinforced for strength and flexibility
- Accepts ceramic tiles after just 4 hours

DESCRIPTION

Bostik Cempolates Flexi-Deep is a protein-free, flexible smoothing and levelling compound designed for deep fill applications when preparing interior floors prior to laying carpet, soft floor coverings or ceramic tiles. It is reinforced with fibres for strength and flexibility and can be applied to thicknesses between 3mm and 60mm in a single application. Being protein-free, it is suitable for use in biologically sensitive areas.

It is ideal for smoothing and levelling prepared concrete subfloors, sand/cement screeds, stone, calcium sulphate-based screeds, mastic asphalt, flooring grade plywood and firmly bonded unglazed ceramic, terrazzo & quarry tiles. It can also be applied over minimal quantities of tile adhesive residue, provided they are firmly bonded and unaffected by water. It is not suitable for use over existing adhesive or water-soluble residues.

It is suitable for use with warm water underfloor heating systems and for encapsulating electrical radiant underfloor heating, provided a surface temperature of +27°C is not exceeded. It is not to be used as a wearing surface and should always be covered with a floor covering. For interior use only.



TECHNICAL CHARACTERISTICS

Colour	Grey
Form	Dry, free flowing powder
Composition	Polymer modified cement containing fibres
Application temperature	+5°C to +27°C
Gauging liquid	Water
Application thickness	3mm to 60mm
Working times	Up to 20 minutes after mixing (depending on ambient temperature and humidity) Light foot traffic: approx. 2 ½ hours Loose lay floor coverings: approx. 16 hours Bonded floor coverings: approx. 24 hours per 10mm thickness
Drying times	Ceramic tiles: approx. 4 hours (<10mm thickness) or minimum 24 hours per 10mm thickness Textile coverings: approx. 24 hours per 10mm thickness (<5mm thickness at +20°C, depending on application thickness, ambient temperature and humidity)

Compressive strength	Typically, 35N/mm ² after 28 days
Flexural strength	Typically, 6N/mm ² after 28 days

COVERAGE

- Approx. 3.7m² per bag at 3mm thickness (depending on the smoothness and absorbency of the floor surface)

APPLICATION

IMPORTANT: Before using Bostik Cempolatex Flexi-Deep, refer to the relevant Health & Safety Data Sheet, available at 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. If minimal amounts of adhesive residue remain, it must not be affected by water and be firmly bonded.
- 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 Cempolatex Flexi-Deep.
- 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.

UNDERFLOOR HEATING

- Bostik Cempolatex Flexi-Deep 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.
- Bostik Cempolatex Flexi-Deep can be used to encapsulate electrical underfloor heating. There must be a minimum of 5mm to 6mm Bostik Cempolatex Flexi-Deep covering the mat before bonding tiling products, and 10mm before bonding resilient textile or timber flooring. Install cabling as per manufacturer's instructions. Ensure the electrical cables are not damaged when installing the compound. The substrate to which the underfloor heating matting is fixed must be sound and stable. 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.

PLYWOOD AND CHIPBOARD SUBSTRATES

- The timber-based substrate must be acclimatised and fixed in accordance with the industry standards.
- The surface must be clean dry and dust free.
- Prime the surface using the appropriate primer from the selection chart below.
- An application thickness of 6mm should not be exceeded on timber-based substrates.

PRIMING

- When applying Bostik Cempolatex Flexi-Deep, 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)
Flooring grade plywood (must be mechanically fixed)	Bostik Cempolay Universal Primer (diluted 1 : 1 with water)
Mastic asphalt	Undiluted Bostik Cempolay Universal Primer (for applications up to 5mm max)
Electrical radiant underfloor heating systems	Contact Technical Services

MIXING & APPLICATION THICKNESS

- Pour 3.5 litres of clean, cold water into a clean mixing bucket.
- Gradually add the 20kg bag of Bostik Cempolatex Flexi-Deep 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 Cempolatex Flexi-Deep can be applied from 3mm to 60mm 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.

- 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.

APPLICATION

- Pour the mixed material onto the prepared subfloor in a continuous operation.
- Using a steel trowel, apply Bostik Cempolatex Flexi-Deep evenly to the required thickness.
- On deep applications, where a sensitive floor covering such as vinyl or LVT is to be installed, an additional application of 3mm of compound may be required.
- 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 5mm thickness, the compound can be laid directly over after the following times:

Light foot traffic	2 ½ hours approx.
Loose lay floor coverings	16 hours approx.
Bonded floor coverings	24 hours approx. per 10mm thickness
Ceramic tiles	4 hours approx. (<10mm thickness) or minimum 24 hours per 10mm thickness
Textile 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.

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 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 Cempolatex Flexi-Deep, available at www.bostik.com/uk.

PACKAGING

Product codes	30616166	20kg bag
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