WHERE TO USE
Formation of bonded, unbonded and floating screeds on both existing and new concrete prior to the installation of wood, PVC, linoleum, ceramic tiles, natural stone, carpet or any other flooring where rapid drying is required for short installation times.

Suitable for indoor and outdoor use.

Some application examples
- Formation of screeds set to light foot traffic after 12 hours and completely dry after 4 days, for laying resilient flooring and 4 days for wooden flooring.
- Formation of screeds on which ceramic tiles can be laid after 24 hours and natural stone after 2 days.
- Patching and repairing floor screeds where rapid restoration is required.
- Preparation of screeds incorporating underfloor heating systems without the need for polymer additives.

TECHNICAL CHARACTERISTICS
Topcem is a special hydraulic binder which, when mixed with graded aggregates and water, can produce mortars that can harden in approximately 24 hours, and dry in approximately 4 days.

RECOMMENDATIONS
- Do not mix Topcem just with fine sand, use aggregates graded from 0 to 8 mm (for screeds up to 5-6 cm thick).
- Do not mix Topcem with an excessive quantity of water.
- Do not add water and remix Topcem after it has started to set.

APPLICATION PROCEDURE
Preparing the substrate
All substrates are suitable for receiving a Topcem screed. Isolate the substrate with a sheet of polyethylene or similar; in the case of rising damp provide a suitable waterproof membrane. If the screed is not of the self-bearing type, and the old cementitious, stone or ceramic substrate needs to be dry, resistant to compression and tension, free from cracks, dust, loose material, oil, paint, wax and traces of gypsum. For other types of substrates consult MAPEI’s Technical Service.

UNBONDED SCREEDS (35 to 60 mm thick)
Preparing the mix
Carefully mix the Topcem with graded aggregates 0-8 mm in diameter and water, in a mixer or batcher for at least 5 minutes. The mix must be spread, tamped and levelled in the shortest possible time and in any event not more than an hour after preparation. Particular care must be taken with the quantity of water which must be such as to obtain a mix with a “damp earth” consistency that under a float finish will compact to produce a closed and smooth surface without water bleed.
Topcem, aggregates and water can be mixed using:
- a drum mixer;
- an ordinary concrete mixer;
- a screw mixer;
- an automatic pressure pump.

Mixing manually with a shovel is not recommended as it does not permit good dispersion of the components of Topcem components resulting in the need to increase the quantity of water in order to obtain the right mix. Where it is not possible to use a mechanical mixer and for small area that require mixing by hand, it is recommended to thoroughly dry mix the Topcem with the aggregates before adding the water in small amounts, turning the mix until a “damp earth” consistency is obtained.

On compressible substrates Topcem screeds must be thick enough and should be reinforced with adequate steel mesh.

**RECOMMENDED DOSAGE**

- **Topcem**: 200-250 kg/m³
- Graded aggregates: 0-8 mm in diameter 1650-1800 kg/m³
- Water: 110-130 kg/m³ for dry aggregate. The amount of water could vary depending on the moisture in the aggregate

or:
- **Topcem**: one 20 kg bag
- Graded aggregates: 0-8 mm in diameter 140-160 kg
Where underfloor heating pipes are incorporated, they should be located a minimum of 25 mm below the surface of the screed. Additionally reinforcing mesh should be placed over the pipes. The underfloor heating may be commissioned after 4 days.

**MEASURING THE MOISTURE CONTENT**

Because of the particular composition and character of Topcem, ordinary electric moisture meters, do not give reliable values; residual moisture can only be recorded with a carbide hygrometer.

**Cleaning**

Tools can be cleaned with water.

**CONSUMPTION**

Consumption varies in relation to the thickness of the screed and the dosage of Topcem. For doses of 200-250 kg of Topcem per m³ of aggregate consumption is 2-2.5 kg/m²/cm of thickness.

**PACKAGING**

20 kg paper sacks.

**STORAGE**

Topcem can be stored for 12 months in a dry place in the original packaging. The product complies with the conditions of Annex XVII to Regulation (EC) N° 1907/2006 (REACH) - All. XVII, item 47.

**SAFETY INSTRUCTIONS FOR PREPARATION AND INSTALLATION**

Topcem contains cement that when in contact with sweat or other body fluids causes irritant alkaline reactions and allergic reactions to those predisposed. It can cause damage to eyes. It is recommended to use protective gloves and goggles and to take the usual precautions for handling chemicals. If the product comes in contact with the eyes or skin, wash immediately with plenty of water and seek medical attention. For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

**PRODUCT FOR PROFESSIONAL USE.**

**WARNING**

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com.
Topcem is not a rapid setting binder, therefore workability is like a normal cement screed.

### Table: Mechanical Resistance in Screeds with Topcem (20 kg), Graded Dry Aggregate 0-8 mm (160 kg) and Water (11 kg)

<table>
<thead>
<tr>
<th>TIME (days)</th>
<th>MECHANICAL RESISTANCE (N/mm²)</th>
<th>MOISTURE at +23°C - 50% R.H.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COMPRRESSIVE STRENGTH</td>
<td>FLEXURAL STRENGTH</td>
</tr>
<tr>
<td>1</td>
<td>&gt; 8</td>
<td>&gt; 3</td>
</tr>
<tr>
<td>4</td>
<td>&gt; 15</td>
<td>&gt; 4</td>
</tr>
<tr>
<td>7</td>
<td>&gt; 22</td>
<td>&gt; 5</td>
</tr>
<tr>
<td>28</td>
<td>&gt; 30</td>
<td>&gt; 6</td>
</tr>
</tbody>
</table>

**LEGAL NOTICE**

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation.

The most up-to-date TDS can be downloaded from our website www.mapei.com.

ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.