

CEM TOP

METALLIC FLOOR TOPPING



DESCRIPTION

CEM TOP is an iron aggregate floor topping, combining graded iron aggregate, cement and chemical agents. The iron aggregate is clean and completely free of oil, grease, and oxidation. CEM TOP offers good resistance to high impact and abrasion conditions. It provides good surface durability for critical areas of a floor which cannot be closed to traffic easily or economically. CEM TOP is normally stocked and offered in a screedable formulation. A zero slump formulation is available on special request.

FEATURES & BENEFITS

- Provides a high strength, impact resistant wearing surface.
- Gives up to 8 times the abrasion resistance of plain, cured concrete.
- Iron aggregate is free of rust, oil and non-ferrous materials.
- Dense surface resists penetration of oil, grease, and many other liquids.
- Virtually non-dusting in service.
- Easy to clean and maintain.

BASIC USES

- Industrial floors
- Warehouses
- Loading docks
- Towveyors
- Flumes
- Maintenance garages for heavy duty equipment

TECHNICAL INFORMATION

Typical Engineering Data Compressive Strength

50mm - cubes ASTM C 109

Age	Strength
1 day	5,000 psi (34.6 MPa)
3 days	6,800 psi (46.9 MPa)
7 days	8,200 psi (56.6 MPa)
28 days	10,200 psi (70.3 MPa)

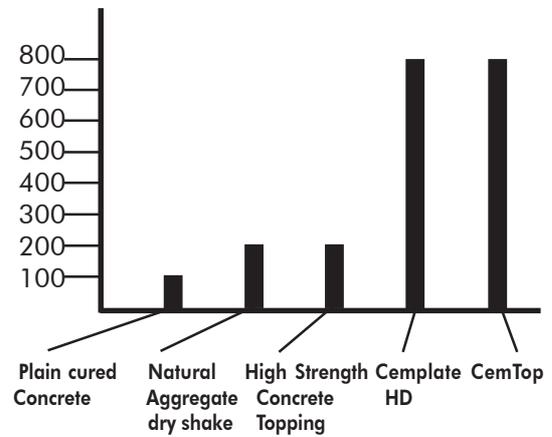
Flexural Strength ASTM C 78 :

Age	Strength
1 day	540 psi (3.7 MPa)
3 days	750 psi (5.2 MPa)
7 days	980 psi (6.8 MPa)
28 days	1,425 psi (9.8 MPa)

The floor may be returned to service within 72 hours of topping placement @ 21°C

RELATIVE ABRASION RESISTANCE ASTM C 779 MAXIMUM RANGES

% of Reference



Appearance

CEM TOP is a free flowing powder which is mixed at the job site with water and is normally placed at 102-152 mm slump. CEM TOP is an iron aggregate topping which has a very dark gray appearance after installation. The final troweled appearance can be any texture consistent with that expected from concrete and should be specified by the owner.

COVERAGE

Monolithic Application

44 kg/m ²	13 mm min.
88 kg/m ²	25 mm
176 kg/m ²	51 mm max.

Two Course Bonded Application

66 kg/m ²	19 mm min
88 kg/m ²	25 mm
176 kg/m ²	51 mm max

DIRECTIONS FOR USE

Surface Preparation

New concrete must be a minimum of 28 days old, if an epoxy adhesive will be used to bond the topping. If a latex bonding agent is used, the concrete must be a minimum of 3 days old and must be textured at the time of placement to secure a good mechanical bond of the topping. If the new concrete is not finished with an appropriate texture, follow surface preparation procedures below for old concrete. Old concrete must be clean and rough. All oil, dirt debris, paint and unsound concrete must be removed. The surface must be prepared mechanically using a scabber, bushhammer, shotblast or scarifier which will give a surface profile of a minimum 3 mm and expose the large aggregate of the concrete. The final step in cleaning should be the complete removal of all residue with a vacuum cleaner or pressure washing. All concrete must possess an open surface texture with all curing compounds and sealers removed.

YIELD	One 25 kg bag will yield 0.0077m ² mixed topping or enough material to cover 0.28 m ³ at 25mm thickness when mixed with 2.3 liter of water.
PACKAGING	Available in 25 kg bags
COLOR	Contact CMCI tech dept.

Joins and Edges

Edges should be sawcut to 6 mm deeper than the topping thickness and notched at the edge of the overlay to provide a locked in degree. Chip the edge with a hand held chipping hammer to provide the wedge shaped notch. Moving joints as in the case of expansion joints should be brought up through the overlay by sawcutting or with the use of a divider strip. All cracks over 1.6 mm wide should be routed out to a 6 mm width and 6 mm depth prior to application of the mortar.

Bonding

After the surface has been prepared, prime all areas with either EPOMORT 1000 or an CEMPOL SBR cement slurry.

Note

If a latex slurry is used, the substrate surface must have a highly scabbled texture. The profile must be a minimum of 6 mm for use of a latex slurry for bonding. Follow mixing and placing instructions on the corresponding technical data sheet. Place the topping on the wet or 'tacky' primer before it cures. Primer must be ordered separately.

Mixing

Small quantities may be mixed with a drill and "jiffy" mixer. Use a paddle type mortar mixer for large jobs. All materials should be in the temperature range of 16°C-32°C. Add the appropriate amount of water for the batch size and then add the dry product. Mix for a minimum of 3 minutes. The mixed product should be placed immediately

Placement

Discharge material from mixer and place onto floor. For patching, spread with a trowel, come-a-long, or square ended shovel to a thickness that matches the surrounding concrete. Finish by hand troweling. On large areas, use screed strips as guides in combination with vibratory screeding to level. Compact and finish by hand or machine trowel.

Curing and Sealing

Proper curing procedures are important to ensure the durability and quality of the topping. To prevent surface cracking, cure the floor as soon as possible with a high solids curing compound, such as KUREKOTE 75 VOX or CEMTEC KURE N SEAL. After the curing compound has dried, rewet the surface and cover with polythene for a minimum of three (3) days. If a curing compound is not desired, wet cure for a minimum of 3 days.

CLEAN-UP

Clean tools and equipment with water before the material hardens

PRECAUTIONS / LIMITATIONS

- Do not use material at temperatures below 7°C
- No heavy traffic until the product has cured.
- Do not use over air-entrained concrete when placing monolithically.
- Do not use over concrete containing calcium chloride or chloride based admixtures.
- Proper curing and sealing is required
- Not for use in areas subject to de-icing salts or chemical attack
- Store in a dry place.

Quality Statement

CMCI manufactures its products at their manufacturing facility in Saudi Arabia as per the Quality Procedures certified to conform with quality Management System described in ISO 9000 series

CMCI provides a comprehensive technical support system for its full range of high performance construction products CMCI also offers full technical field support to consultants, Architects, contractors, applicators and End Users.

"High Quality Construction Chemicals"

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