



CEM540

Fiber-Reinforced Plaster Concentrate

PRODUCT DESCRIPTION

CEM540 is a fiber glass-reinforced Portland cement plaster designed as a decorative, weather resistant finish over masonry, base coat plaster and concrete. Use as scratch and/or base coat over lath on exterior grade sheeting and building paper. CEM540 conforms to ASTM C-926 requirements for Portland cement plaster.

FIELDS OF APPLICATION

When CEM540 is mixed with EB550 SBR, it provides a durable, weather resistant finish in one application over woven-wire fabric lath and polystyrene insulation boards. CEM540 can also be used as water and crack-resistant stucco. CEM540 can be used in one-application, double-pack process over metal lath, or plaster netting over exterior gypsum sheeting and building paper. CEM540 can also be viable substitute for three coat stucco, and as a fiber-reinforces, water-resistant finish coat stucco over masonry structures, scratch and brown coat stucco.

PRODUCT FEATURES

- Easily mixed.
- High resistance to freeze thaw cycles.
- Weather Resistant.
- High impact resistance

PACKAGING

Product	Packaging
CEM540	80 Lb (36.3 Kg) Bag

TECHNICAL DATA

Property	Test Method	Result
Water Penetration percolation 3/8" CEM540 plaster	ICBO	No loss of 4 ft water pressure after 48 hours
Uniform Transverse Load (over wood studs 24" O.C.)	ASTM E-72	Max Load to failure 80.4 Lb/ft ²
Impact Resistance (over wood studs 24" O.C.)	Dynamic Impact 0.5lb 1-1/2" diameter	No Damage or delamination from 3 ft drop
Freeze-thaw resistance (water saturated)	-10°F. ambient each 1-1/2 hrs	No adverse affect after 75 cycles
Tensile Bond Strength (Over EPS Boards)	3" x 3" tensile pull	47 psi failure in CEM540 board
Multi Story Large Scale Fire Test	UB-17-6	Passed
Large Scale Fire Testing (Vertical Position)	ASTM E-108 (Mod) with and without core exposed	Passed 15 minutes requirements
Thermal transmission plaster	ASTM C-177 at 3/8"	R = 0.06
Thermal transmission Polystyrene Ins. Board	ASTM C-177 at 1"	Average R = 3.6

APPLICATION DATA

Limitations: do not apply CEM540 when temperature falls below 40°F within 48 hours. Only water needs to be added when CEM540 is complete. This particularly excludes the use of "Anti-freeze" in winter. Do not use CEM540 in structural applications, such as dry-stacking block.

Surface Preparation: all surfaces to receive CEM540 must be free of oil, grease, dust, frost, efflorescence, etc. Scratch or brown coats should be cured evenly and firmly enough to receive the finish coat. Dampen all porous surfaces before application. It is important for each batch of CEM540 to have the same amount of mixing time and the same amount of water.

Mixing: for CEM540 Concentrate: this material requires the addition of clean, sharp masonry/plaster sand which is added at the job site. The proper amount of sand is 250 lbs. for an 80 lb. bag of concentrate. The total amount of water added to the bag of concentrate and the required amount of sand is approximately 7 1/4 gallons. Follow mixing and application instructions in the application section.

Application: CEM540 is designed for one-coat double-back applications. Texturing can proceed as desired as a double-back coat. Always mix the plaster with a diluted mixture of EB550 SBR and clean water in the ratio of two parts water to one part EB550 SBR. Use approximately 2-1/2 gallons of the liquid mixture per 80 lb. bag of sanded CEM540. Use a mechanical mixer. Mixing time must not exceed five minutes. Do not retemper. For CEM540 insulation system, inspect insulation board and wire mesh installation to ensure that fasteners are installed 6" on center and penetrate 3/8" into structural members. Board must meet ASTM C-578 at 11/2 lb. density. Codes may require installation of a moisture vapor barrier behind the rigid insulation boards. Woven wire lath shall be 1", 20 gauge, galvanized, 4" overlapped. Apply the plaster uniformly with trowel to cover the wire at 3/8" minimal thickness. For stucco, use approximately 1-3/4 gallons of clean water per 80 lb. bag. Use a mechanical mixer. Keep mixing time to five minutes. Do not retemper. For optimum performance, mix EB550 SBR with clean water at a ratio of two parts water to one part EB550 SBR. Use trowels or apply pneumatically over properly installed backing materials to the specified thickness. Never apply less than 1/8" thickness or more than 3/8" thickness in one application. For complete installation instructions, see ASTM C-926. For gun applications and pumpability, the addition of a pumping agent is necessary. Consult with the manufacturer.

Curing: fog spray with water once or twice a day for two or three days, or as the weather dictates. Do not add additional cement, lime or sand.

CLEANING

Clean application tools and mixing equipment with water immediately following use.

STORAGE

Store CEM540 in cool dry storage facilities. Do not expose to direct sunlight. The shelf life of CEM540 is minimum 1 year if stored in a cool dry place in its original unopened container.

SAFETY PRECAUTIONS

CEM540 is a non-flammable and non-toxic in nature. Avoid contact with eyes and skin as it may cause irritation due to its alkaline nature. Splashes of CEM540 should be washed off immediately with clean water. Wear necessary gloves and dust mask.

TECHNICAL ASSISTANCE

Please contact International Chem-Crete Corporation for Technical Personnel.

WARRANTY

LIMITED WARRANTY: International Chem-Crete Inc. warrants that, at the time and place we make shipment, our materials will be of good quality and will conform to our published specifications in force on the date of acceptance of the order.

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Manufactured By:



International Chem-Crete Inc., 800 Security Row, Richardson, TX 75081, U.S.A

Tel: (972) 671-6477, Fax: (972) 238-0307

contactus@chem-crete.com

www.chem-crete.com