



TECHNICAL BULLETIN

TUFF-CRETE (Gray) Acrylic Latex Modified Concrete & Underlayment

PRODUCT DESCRIPTION

TUFF-CRETE is an acrylic latex modified concrete. It may be combined with a metal lath reinforcement to provide a substrate underlayment suitable for the application of the TUFFLEX II Fire System. TUFF-CRETE may also be used for addition of slope to concrete or plywood surfaces.

BASIC USE

TUFF-CRETE is a multi-purpose patching, floor leveling and sloping compound. It is designed for interior or exterior floor leveling or sloping prior to installation of approved coating systems. TUFF-CRETE may be used on concrete, plywood and structural lightweight concrete.

FEATURES

- Easy to mix
- No odor
- Trowels smooth
- Fast hardening ready for light foot traffic after 4 to 6 hours
- Bonds to most substrates
- Excellent surface hardness
- Little or no shrinkage cracks
- Compatible with a wide variety of decking finishes
- Can be trowelled to a feather edge
- Non-flammable

LIMITATIONS

- Do not use for below-grade applications except when covered by an approved coating system.
- Do not leave exposed as finished surface without approved seal coat.
- Do not apply at thicknesses ½ inch or greater over plywood without including metal lath reinforcement.
- Do not apply greater than 1" lifts per application.
- Concrete substrates shall be a minimum of 2.0 inches in thickness.

GRADE

TUFF-CRETE includes a modified concrete mixture combined with an acrylic polymer, TUFF-CRETE Clear Additive, and utilized in the underlayment for the TUFFLEX II Fire System over plywood or as a patching, sloping, and leveling material over concrete.

TUFF-CRETE is also available in white (TUFF-CRETE K/D) and is used in conjunction with the TUFFLEX K/D & K/D II Decorative Finishes. TUFF-CRETE K/D may be used for leveling, but may require more additive. It is recommended to use the TUFF-CRETE (Gray) for underlayment and leveling work.

PACKAGING

TUFF-CRETE is available in 50 pound bags. TUFF-CRETE Clear Additive is available in 1 and 5 gallon containers (U.S. gallon measures).

SHELF-LIFE

Twelve months from shipping date stored below 80° F. Do not allow product to freeze. Do not store TUFF-CRETE powder in damp or wet area.

APPLICABLE STANDARDS

Meets the requirements of ASTM E108-82 for a "CLASS A" Fire Retardant Roof over a combustible substrate of minimum 5/8" plywood when combined with TUFFLEX II Fire System.

JOB CONDITIONS

Before any work is started, the applicator shall thoroughly examine all surfaces for any deficiencies. Should any deficiencies exist, the Architect, Owner or General Contractor shall be notified in writing and any corrections necessary shall be made.

Cold or inclement weather will effect the cure time of TUFF-CRETE. Do not install over wet substrate, in the rain or if the threat of rain exists within 24 hours.

INSTALLATION

Preparation:

1. Concrete shall be fully cured.
2. Concrete shall not exceed 10% moisture content. Moisture Vapor Transmission shall not exceed 5 lbs. per 1,000 square feet per 24 hours.
3. Concrete or wood surfaces should be clean and free from all dirt, dust, grease, paint or other foreign matter.
4. All expansion joints shall be treated as specified on the drawings and in strict accordance with Excellent Coatings International's written approval.
5. Plywood shall be of exterior grade, plugged and filled, minimum 5/8" thick, supported at all edges and tightly screwed or nailed with ring shank or equivalent non-backing nails in accordance with local building codes.
6. For fill or sloping over plywood galvanized metal lath shall be laid so that seams are butted. In the field of the sheets, staple in a random pattern using 20-25 staples per square foot. Staple lath at all seams in a zipped pattern.

Note: Metal lath must be stapled down tight and securely.

Application:

1. (Concrete) Apply TUFF-CRETE Primer to properly prepared concrete substrate. Allow primer to become tacky. TUFF-CRETE underlayment must be applied before primer coat cures.
2. Mixing ratio for TUFF-CRETE underlayment is 1 gallon TUFF-CRETE Additive to 1 bag of TUFF-CRETE powder. Products shall be thoroughly mixed by electric drill until an even consistency is achieved. Do not take mixing attachment out of the material until the blade has completely stopped. If the blade is rotating it will force air into the TUFF-CRETE, possibly causing bubbles in the surface.

Note: For fill over concrete greater than 1/4 inch, add TUFFLEX Fibers to increase strength, integrity and reduce shrinkage cracks. Add 1 bag of fibers per 1 bag of TUFF-CRETE.

3. Using a trowel or similar tool, spread the mixture over the entire surface at the desired thickness not to exceed ¾ inch to

1 inch lifts per application. When applying over plywood metal lath must be completely covered and encapsulated with Excel-Crete.

4. One bag of TUFF-CRETE mixed with 1 gallon of TUFF-CRETE Clear Additive should cover approximately 20 to 25 square feet at 1/4" thickness.
5. Allow to cure 4 to 6 hours before installation of approved coating system. Dry times may vary.

Note: TUFFLEX Retarder may be added to TUFF-CRETE mixture to extend the work time of the material when temperatures rise above 75° F.

STORAGE AND HANDLING

Store TUFF-CRETE in a cool, dry area and protect from freezing. Keep TUFF-CRETE powder dry. Partial containers of TUFF-CRETE Clear Additive can be resealed. Should a top skin develop on the remaining contents of a container, the physical properties and effectiveness of the contents will not be impaired. Clean mixing and application tools with water. Dispose of empty containers properly according to current Local, State and Federal regulations.

HEALTH AND HAZARD INFORMATION

Use product with adequate ventilation and personal protection. Users must read container label and Safety Data Sheet (SDS) for specific health and safety precautions prior to use.

AVAILABILITY

Immediately available from TUFFLEX Polymers and authorized distributors.

Cost data is available from your local TUFFLEX Polymers authorized representative. For the name and number of the nearest local representative, call TUFFLEX Polymers at (888) TUFFLEX.

REPAIRS AND MAINTENANCE

If damage occurs, simple repairs using the same product can be accomplished. Contact TUFFLEX Polymers for specific information regarding long-term maintenance

PRODUCT GUARANTEE / WARRANTY

TUFFLEX Polymers warrants TUFF-CRETE to be free of defects and manufactured to meet published physical properties for a period of one year following the date of shipment, provided that the product has been applied according to the manufacturer's instructions. Under this warranty, TUFFLEX Polymers will provide, at no charge product in containers to replace any product proven to be defective in applications recommended by us as suitable for this product. All claims concerning the product's defects must be made within twelve months of shipment and within thirty days of discovery. Absence of such claims in writing during this period will constitute a waiver of all claims with respect to such product. This warranty is IN LIEU OF any and all other warranties, expressed or implied, including, but not limited to any implied warranty of MERCHANTABILITY of fitness for a specific purpose.

TECHNICAL SERVICE

Authorized local representatives are available to provide design assistance and on-site instruction for our products. TUFFLEX Polymers provides assistance in design and development of special applications and partial inspection. Part-time or full-time inspection and instruction are available on a fee basis upon arrangement. Technical data is available upon request.

TUFF-CRETE (Gray)

COST