



TECHNICAL DATA SHEET – TUFFREZ® CM

Revised: 2/2017

DESCRIPTION

TuffRez® CM is a multi-component polyurethane coving mortar with built-in performance anti-microbial for use with TuffRez® polyurethane concrete toppings. Ultra-Fresh® performance antimicrobial is added into the screed matrix to inhibit growth of bacteria and microorganisms.

TYPICAL APPLICATION

PRIMER	TuffRez® PC Topcoat
ONE COAT	TuffRez® CM @ 3/16"

PERFORMANCE DATA

COMPRESSIVE STRENGTH (ASTM C - 579)	5,500 psi
TENSILE STRENGTH (ASTM C - 307)	900 psi
FLEXURAL STRENGTH (ASTM C - 580)	2,900 psi
BOND STRENGTH (ASTM D - 4541)	Concrete failure
IMPACT STRENGTH, IN/LB S (ASTM D - 4226)	>160
VOC	0.0 lb/gal; 0.0 gm/L
MICROBIAL/FUNGAL CONTACT INHIBITION (A.A.T.C.C. 147 - 1993)	100%

Inclusion of Ultra-Fresh® within the screed matrix of the industrial floor system ensures the permanency of this biocidal additive even in the event of excessive wear.

BENEFITS

- Seamless, hygienic finish; no crevices in which dirt and bacteria can dwell
- Low odor, fast cure installation
- Excellent chemical resistance
- High abrasion resistance
- Easy to clean and sterilize; low maintenance
- Ultra-Fresh® antimicrobial inhibits growth of bacteria and other microorganisms

RECOMMENDED USES

- Coving to enhance TuffRez® floors

GENERIC DESCRIPTION:

Polyurethane Concrete

STANDARD COLORS:

Gray, Red

PACKAGING:

0.2 Cubic Foot (ft³) Unit:
1 each Components A and B, Color Pack, 1 bag CM Filler
- 9-11 ft² @ 3/16" (Dependent on Radius of Cove)
- 25 linear ft @ 4" high x 3/16"

TUFFREZ® CM
POLYURETHANE TOPPING, COVE MORTAR

STORAGE & INSTALLATION

STORAGE ENVIRONMENT	Dry area, 40-85°F
APPLICATION TEMPERATURE, AMBIENT	40-85°F
APPLICATION TEMPERATURE, SUBSTRATE	Minimum 5° above dew point
SHelf LIFE	6 month
POT LIFE, @ 77°F	30 minutes
TRAFFIC, @ 77°F	Light impact: 24 hours/Full: 48 hours
FULLY CURED, @ 77°F	4 days

Material cures more slowly at cooler temperatures, and working time will be substantially reduced at higher temperatures. The optimum temperature for installation of this product is 65-85°F. If temperatures are outside this range the contractor will need to expect installation changes and react accordingly. At lower temperatures the material will be more viscous and difficult to move, requiring more effort to install it. At elevated temperatures the material will cure more quickly so work crews will need to work accordingly.

CONSIDERATIONS & LIMITATIONS

1. Due to the difference in surface finish obtained with TuffRez® flooring (HF, MF, HQ) and TuffRez® CM cove mortar, the floor and coving will have slightly different colors. Aggregate filler in TuffRez® CM may create a slight fleck in surface color and texture.
2. TuffRez® CM is not color stable and may discolor on aging (more noticeable in light colors). This will not impair its chemical resistance.
3. Polyurethane mortar flooring materials shall not be installed or placed on substrates where water is present, or may be expected to be present before the cure of the flooring material.
4. Floors should be sloped to drain to prevent standing water or chemicals. As with any surface, all spills should be removed as soon as possible to prevent a slipping hazard.
5. Do not thin with solvents unless advised to do so by ITW Engineered Polymers.
6. Confirm product performance in specific chemical environment prior to use.
7. Prepare substrate according to "Surface Preparation" portion of this document.
8. Do not apply to below grade slabs unless a heavy unruptured vapor barrier has been installed under the slab.
9. Always use protective clothing, gloves and goggles consistent with OSHA regulations during use. Avoid eye and skin contact. Do not ingest or inhale. Refer to Material Safety Data Sheet for detailed safety precautions.
10. For industrial/commercial use. Installation by trained personnel only.

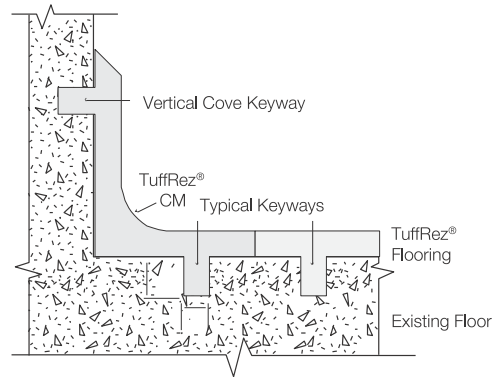
SURFACE PREPARATION

- CONCRETE:** Apply only to clean, dry and sound concrete substrates that are free of all coatings, sealers, curing compounds, oils, greases or any other contaminants.
- New concrete should be cured a minimum of 14 days.
 - Concrete that has been contaminated with chemicals or other foreign matter must be neutralized or removed.
 - Remove any laitance or weak surface layers.
 - Concrete should have a minimum surface tensile strength of at least 300 PSI per ASTM D-4541.
 - Surface profile shall be CSP-5 or greater meeting ICRI (International Concrete Repair Institute) standard guideline #03732 for coating concrete, producing a profile equal to 40-grit sandpaper or coarser. Prepare surface by mechanical means to achieve this desired profile.
 - Moisture vapor transmission should be 8 pounds or less per 1,000 square feet over a 24 hour time period, as confirmed through a calcium chloride test, as per ASTM E-1907. Quantitative relative humidity (RH) testing, ASTM F-2170, should confirm concrete RH results <80%.
 - All surface irregularities, cracks, expansion joints and control joints should be properly addressed prior to application.
 - Outgassing may occur due to the porosity of some concrete surfaces. To reduce the effect of outgassing, the primer and coating should be applied when the temperature of the concrete substrate is dropping. This usually occurs in the evening; however, the concrete substrate temperature should be measured with a surface thermometer for verification. Double priming will greatly reduce the effects of outgassing by additionally filling the pores in the concrete.

Refer to PolySpec Surface Preparation Guidelines for more details.

INSTALLATION STEPS

1. To prevent undercutting or lifting, keyways (minimum 5/16" wide x 5/16" deep) must be formed at all edges, bay joints, columns, doorways, drains and at regular centers, spaced 10-12 feet apart across the floor surface. See TuffRez detail drawings (available for download at www.polyspec.com) for construction details relating to terminations and connections.
2. Remove all sand and dust from area to be covered.
3. Prime surface with TuffRez® PC Topcoat; see data sheet for application details.
NOTE: Proceed with TuffRez® CM Cove Mortar installation while the primer is still tacky, about 1 hour at 77°F.
4. Component A Resin should be premixed prior to using due to possible settling that may occur during transportation and storage.
5. Add Component C (Color Pack) to Component A until mixed thoroughly.
6. Pour Component B Hardener into Component A Resin. Mix thoroughly using a slow speed drill.
7. Add the filler to the resin/hardener mixture. Mix until uniform, at least 2 minutes.
8. Immediately after mixing, form the vertical edge of the cove.
9. Lay the base level with the edge of the floor finish.
10. Place a fillet of mortar and form the cove with a coving trowel.
NOTE: The maximum application thickness is 1 inch.
11. For best results, clean tools and equipment with PolySpec® All Purpose Cleaner, a nonflammable and non-evaporating cleaner. Always wear gloves when using this product.



C / DOC CM-TDS
PolySpec is a ® Registered Trademark of ITW Engineered Polymers.
Ultra-Fresh (anti-microbial) is a ® Registered Trademark of Thomson Research Associates
© Copyright 2017 ITW Engineered Polymers. All rights reserved. Published technical data and instructions are subject to change without notice. Please visit the online catalog at www.polyspec.com for the most current technical data and instructions. Or, you may contact your ITW Engineered Polymers representative for current technical data and instructions.

ITW Engineered Polymers warrants its products to be free from defects in material and workmanship. ITW's sole obligation and Buyer's exclusive remedy in connection with the products shall be limited, at ITW's option, to either replacement of products not conforming to this warranty or credit to Buyer's account in the invoiced amount of the nonconforming products. Any claim under this Warranty must be made by Buyer to ITW in writing within five days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life, or one year from the delivery date, whichever is earlier. Buyer's failure to notify ITW of such nonconformance as required herein shall bar Buyer from recovery under this warranty.

ITW makes no other warranties concerning this product. No other warranties, either expressed or implied, or statutory, such as warranties of merchantability or fitness for a particular purpose, shall apply. In no event shall ITW Engineered Polymers be liable for consequential or incidental damages.

Any recommendation or suggestion relating to the use of the products made by ITW, whether in its technical literature, or in response to specific inquiry, or otherwise, is based on data believed to be reliable; however, the products and information are intended for use by Buyers having requisite skill and know-how in the industry, and therefore it is for the Buyer to satisfy itself of the suitability of the products for its own particular use, and it shall be deemed that Buyer has done so, at its sole discretion and risk. Variation in environment changes in procedures of use, or extrapolation of data may cause unsatisfactory results. ITW cannot guarantee that color will conform to sample, if provided.