



TECHNICAL DATA SHEET – TUFFREZ® 240

Revised: 2/2017

DESCRIPTION

TuffRez 240 is a 100% solids, chemical resistant epoxy liner used for protection of concrete and steel from chemicals and wastewater in immersion and splash and spillage conditions.

TYPICAL APPLICATION

ROUGH CONCRETE	
ONE COAT	TuffRez 240 @ 100 mils
SMOOTH CONCRETE / STEEL	
BASECOAT	TuffRez 240 @ 15-20 mils
TOPCOAT	TuffRez 240 @ 15-20 mils

PERFORMANCE DATA

COMPRESSIVE STRENGTH (ASTM C - 579)	12,870 psi
TENSILE STRENGTH (ASTM D - 638)	6,690 psi
FLEXURAL STRENGTH (ASTM C - 580)	12,443 psi
OPERATING TEMPERATURE, MAXIMUM, DRY: WET:	150° F Dependent on chemical exposure
BOND STRENGTH (ASTM D - 4541)	450 psi
VOC	0.0 lb/gal; 0.0 gm/L
VOLUME SOLIDS	100%

BENEFITS

- Excellent resistance to dilute acids, alkalis, wastewater and sewer gas (H₂S)
- Low blush amine
- May be applied at 100 mil thickness (two 50 mil coats for vertical surfaces)

RECOMMENDED USES

- Manholes
- Large diameter sewer pipe
- Lift station walls
- Tanks

GENERIC DESCRIPTION:

Epoxy

STANDARD COLORS:

Gray

PACKAGING:

- 10-Gallon Unit (special order / minimum)
- 4-Gallon Unit

MIX RATIO:

1R: 1H

COVERAGE:

16 ft² / gallon @ 100 mils
100 ft² / gallon @ 16 mils

TUFFREZ® 240
EPOXY LINER, CHEMICAL RESISTANT

STORAGE & INSTALLATION

STORAGE ENVIRONMENT	Dry area, 55-95°F
APPLICATION TEMPERATURE, AMBIENT	40-85°F
APPLICATION TEMPERATURE, SUBSTRATE	Minimum 5° above dew point
SHELF LIFE	1 year
POT LIFE, @ 77°F	60 minutes
TACK FREE, @ 70°F	8 hours
FULL SERVICE, @ 77°F	24 hours
RECOAT WINDOW	Minimum: 4 hours / Maximum: 72 hours

CONSIDERATIONS & LIMITATIONS

1. Do not thin with solvents unless advised to do so by ITW Engineered Polymers.
2. Confirm product performance in specific chemical environment prior to use.
3. Prepare substrate according to "Surface Preparation" portion of this document.
4. Do not apply to slabs on grade unless a heavy unruptured vapor barrier has been installed under the slab.
5. Always use protective clothing, gloves and goggles consistent with OSHA regulations during use. Avoid eye and skin contact. Do not ingest or inhale.
6. Refer to Material Safety Data Sheet for detailed safety precautions.
7. 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 28 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-3 to CSP-5 meeting ICRI (International Concrete Repair Institute) standard guideline #03732 for coating concrete, producing a profile equal to 60-grit sandpaper or coarser. Prepare surface by mechanical means to achieve this desired profile.
- Moisture vapor transmission should be 3 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 < 75%.
- 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.

STEEL: For immersion service, "white Metal" abrasive blast with an anchor profile of 2-4 mils in accordance with Steel Structures Painting Council Specification SP-5-63 or NACE No. 1 is required. For splash and spillage exposure, "Near White" SP-10-63 or NACE No. 2 is required.

Refer to PolySpec Surface Preparation Guidelines for more details.

INSTALLATION STEPS

1. Under optimum conditions, TuffRez 240 requires no priming. If a primer is necessary, prime concrete surfaces with PolySpec 100EX Primer or American Safety MS 11CZLT to hold blast on steel surfaces. See data sheet for application details.
2. Pour Component A Resin into Component B Hardener and mix with a mechanical jiffy-type mixer operated at low speed until a uniform blend is attained, normally 3 minutes.
3. Apply by brush, roller or spray.
NOTE: Recommended spray equipment is a 68:1 airless sprayer with reverse-a-clean tips, orifice size of 0.031" – 0.035". The addition of up to 10% toluene can be used to aid the application properties.
4. Multiple coats can be applied within 12 hours of the previous coat. Material is tack-free within 8 hours @ 70°F. Maximum recoat @ 75°F is 48 hours.
NOTE: If the first coating becomes, glossy and/or hard to the touch, a lightsanding followed by a wipe with a 50:50 mixture of water and isopropanol will be necessary before applying the second coat. Allow the solvent to flash before applying coating.
5. Always wear gloves when using this product.

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