

## DESCRIPTION

TuffRez 205 is a two component, 100% solids wall and ceiling coating that provides a tile-like, seamless finish. It may be used as a stand-alone system, or fiberglass cloth can be added for enhanced impact resistance.

## TYPICAL APPLICATION

• Primer	PolySpec or TuffRez Epoxy Primer @ 3–5 mils
• Base Coat	TuffRez 205 @ 8 mils
• Top Coat	TuffRez 205 @ 8 mils
• Options	Fiberglass Cloth, 5.8 oz. (Type B) Light Weight Fiberglass Mat, 0.75 or 1.5 oz (Type M) TuffRez CRU Topcoat (various topcoats available) Anti-Microbial Formulation Upgrade (TuffRez 205-AM)

## PERFORMANCE DATA

Compressive Strength (ASTM C-579) .....	9,000 psi
Tensile Strength (ASTM D-638) .....	2,000 psi
Flexural Strength (ASTM C-580) .....	3,500 psi
Hardness, Shore D (ASTM D-2240).....	80–85
Bond Strength (ASTM D-4541) .....	425 psi
Abrasion Resistance (ASTM D-4060) .....	80 mg
Volume Solids .....	100%

## STORAGE & INSTALLATION

Storage Environment.....	Dry area, 65–80°F
Application Temperature, ambient .....	50–95°F
Application Temperature, substrate .....	Minimum 5°F above dew point
Shelf Life .....	1 year
Pot Life, @ 77°F.....	35 minutes
Full Service, @ 77°F.....	8–10 hours

*Material cures more slowly at cooler temperatures, and working time will be substantially reduced at higher temperatures. In hot weather, material should be cooled to 65°F to 80°F prior to mixing and application to improve workability and avoid shortened pot life. The data shown above reflects typical results based on laboratory testing under controlled conditions. Reasonable variations from the data shown above may result.*

## CONSIDERATIONS & LIMITATIONS

1. This product is not designed for exterior use, immersion, or any use where moisture can reach the underside of the coating.
2. Over time this product will yellow from the effects of ultraviolet exposure. A TuffRez® polyurethane (CRU) topcoat will improve UV resistance.
3. Do not thin with solvents unless advised to do so by PolySpec.
4. Confirm product performance in specific chemical environment prior to use.
5. Prepare substrate according to “Surface Preparation” portion of this document.
6. Do not apply to slabs on grade unless a heavy unruptured vapor barrier has been installed under the slab.
7. 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.
8. For industrial/commercial use. Installation by trained personnel only.

# TuffRez® 205

## TECHNICAL DATA SHEET

# Epoxy Wall & Ceiling Coating

## BENEFITS

- Low odor permits use in occupied areas
- Excellent chemical and stain resistance
- Abrasion resistant, light reflective surface
- Cures to a dense surface for easy cleaning
- Bonds firmly to concrete, masonry block, metal, wood and drywall surfaces
- Optional fiberglass reinforcement cloth enhances impact resistance

## RECOMMENDED USES

- Medical facilities
- Clean rooms
- Food processing facilities
- Pharmaceutical facilities
- Electronic/computer manufacturing
- Animal holding areas
- Detention facilities

## GENERIC DESCRIPTION

Epoxy

## STANDARD COLORS

Light Gray, White

Additional colors available upon request. Non-stocking colors may be subject to additional lead time, minimum order requirements, and a slight premium.

## PACKAGING

2-Gallon Unit

## COVERAGE

200 ft<sup>2</sup> / gallon @ 8 mils

## 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.*

**Refer to PolySpec Surface Preparation Guidelines for more details.**

## INSTALLATION STEPS

1. Prime surface with a PolySpec or TuffRez Primer for epoxy on concrete surfaces. See data sheet for application details.
2. Component A Resin should be premixed prior to use due to possible pigment settling that may occur during transportation and storage.
3. Pour Component A Resin and Component B Hardener into a separate mixing vessel and mix well with a mechanical jiffy-type mixer operated at low speed. Scrape the side of the pail to ensure the entire product has been properly mixed; any unmixed material left on the side of the pail will not cure.
4. Apply by brush, roller or spray at a thickness of 8–10 mils DFT.  
*NOTE: Brush and roller application methods may leave a stippled finish. If a smooth finish is desired, spray application is recommended. When applying with airless equipment, slightly heating the coating will eliminate the need for thinning.*
5. OPTIONAL STEP: When using fiberglass reinforcement, lay the glass into the basecoat and saturate with resin/hardener mixture. After coating has become slightly tack free (within approximately 10 hours of cure @70°F), lightly sand to obtain a smooth surface before proceeding to the topcoat step.
6. After the coat has become slightly tack free (within approximately 10 hours of cure @70°F), apply a topcoat of resin/hardener mixture by brush, roller or spray at a thickness of 8–10 mils DFT.
7. PolySpec offers various Chemical Resistance Urethane (CRU) topcoats for enhanced scratch resistance and UV stability of epoxy coatings. Please refer to PolySpec's online catalog at [www.polyspec.com](http://www.polyspec.com) for a complete list of options.
8. 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.

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