

## DESCRIPTION

PermaRez 333NS is a heavy duty vinyl ester novolac broadcast flooring system designed for intermittent exposure to concentrated acids and solvents. Typically installed in one to six layers to achieve a final thickness of 1/16" to 3/8", this system utilizes either non-skid grit or decorative quartz to produce a non-skid finish.

## TYPICAL APPLICATION

• Primer	PolySpec 320 @ 2–3 mils DFT
• Basecoat	PermaRez 333NS @ 12–15 mils
• Broadcast	Non-Skid Grit or Decorative Quartz @ 0.66 lbs/ft <sup>2</sup>
• Topcoat	PermaRez 333NS @ 12–15 mils
• Sealer Coat	PermaRez 333NS @ 6–8 mils

## PERFORMANCE DATA

Compressive Strength (ASTM C-579)	11,000 psi
Tensile Strength (ASTM C-307)	2,500 psi
Flexural Strength (ASTM C-580)	10,500 psi
Hardness, Shore D (ASTM D-2240)	85–90
Bond Strength (ASTM D-4541)	425 psi
Abrasion Resistance (ASTM D-4060)	100 mg
Operating Temperature, maximum	210°F
VOC	1.58 lb/gal; 190 gm/L

## STORAGE & INSTALLATION

Storage Environment	Dry enclosed area, 65–80°F
Application Temperature, ambient	50–95°F
Application Temperature, substrate	Minimum 5°F above dew point
Shelf Life, PROVIDED STORAGE ENVIRONMENT GUIDELINES ARE FOLLOWED	60 days
Pot Life, @ 77°F	35 minutes
Full Service, @ 77°F	7 days

*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 recommended for areas subjected to rapid or sudden temperature changes.
2. Work area must be well ventilated. Fresh air fed respirators are recommended when working with this product.
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.

# PermaRez<sup>®</sup> 333NS

## TECHNICAL DATA SHEET

### Concrete Coating, Acid & Solvent Resistant, Non-Skid

## BENEFITS

- Excellent resistance to concentrated acids and solvents; withstands intermittent attack from 75% sulfuric acid, 37% hydrochloric acid and 100% phosphoric acid
- Outstanding adhesion to concrete surfaces
- Good non-skid properties
- Withstands temperatures to 210°F

## RECOMMENDED USES

- Laboratories
- Pickling/plating areas
- Chemical processing plants
- Food processing plants
- Truck loading/unloading areas
- Secondary containment
- Chemical pump pads

## GENERIC DESCRIPTION

Vinyl Ester Novolac

## STANDARD COLORS

Gray, Clear

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

## PACKAGING

5-Gallon Unit

## COVERAGE

75 ft<sup>2</sup> / gallon @ 15 mils

125 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 concrete surface with PolySpec 320 Primer. See data sheet for application details.
2. Pour Hardener #1 into PermaRez 333NS Resin pail. Mix thoroughly using a jiffy-type mixer operated at low speed until a proper blend is attained. Scrape the sides of the pail to ensure the product has been properly mixed; any unmixed material left on the side of the pail will not cure.  
*NOTE: Mix ratio is 2 ounces Hardener #1 to one gallon PermaRez 333NS Resin.*
3. Spread basecoat mixture onto surface by squeegee to a thickness of 15 mils. Immediately spread the material with a roller to level.
4. Broadcast clean, dry aggregate into wet resin. A full broadcast to refusal will produce the most consistent and durable system. Allow to cure. Brush off excess grit before applying subsequent coat(s).  
*NOTE: For additional thickness, repeat Step 3 (basecoat) and Step 4 (broadcast) until desired thickness is achieved.*  
*NOTE: Silica and aluminum oxide are the accepted grits for multiple coat broadcasts. Decorative quartz may be used, if desired, for final broadcast.*
5. Apply topcoat with a short or medium nap roller. Allow to cure overnight.
6. Apply sealer coat with a short or medium nap roller. Allow to cure a minimum of 24 hours before placing into service.
7. 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.

1 GAL R: 2 OZ H / DOC 333NS-TDS

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