



TECHNICAL DATA SHEET – NOVOREZ® 353

Revised: 5/2017

DESCRIPTION

NovoRez 353 is a 100% solids, multi-functional polymer coating system formulated to resist aggressive chemical immersion. The coating combines micro fillers and epoxy novolac resin with a special “stress-relieving” additive to provide maximum durability and superior compatibility.

TYPICAL APPLICATION

BASECOAT	NovoRez 353BC @ 15 mils
TOPCOAT	NovoRez 353BC @ 15 mils

PERFORMANCE DATA

COMPRESSIVE STRENGTH (ASTM C-579)	20,000 psi
TENSILE STRENGTH (ASTM D-638)	4,000 psi
FLEXURAL STRENGTH (ASTM C-580)	4,300 psi
BOND STRENGTH (ASTM D-4541)	425 psi
OPERATING TEMPERATURE, MAXIMUM, DRY: WET:	185°F Dependent on chemical exposure
VOC	0.0 lb/gal; 0.0 gm/L
VOLUME SOLIDS	100%

BENEFITS

- Maximum chemical resistance to inorganic acids such as phosphoric, hydrochloric acids
- Superior flexibility compared to vinyl ester, polyester or conventional novolac coatings
- Longer service life than thin mil epoxy phenolics
- 100% solids, zero VOC formulation
- Applies at 15 mils per coat without sagging, running or dripping

RECOMMENDED USES

- Internal vessel linings
- Acid frac tanks
- Chemical transport trucks
- Structural steel in acidic conditions

GENERIC DESCRIPTION

Polysulfide-Modified Epoxy Novolac

PACKAGING / COLORS

- 3-Gallon Units (sold separately) STANDARD COLOR
- NovoRez 353BC Basecoat Sand
 - NovoRez 353TC Topcoat Medium Gray

MIX RATIO: 2R : 1H

COVERAGE: 100 ft² / gallon @ 15 mils

NOVOREZ® 353

STEEL COATING, ACID RESISTANT TANK LINING

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	30 minutes
SET TIME, @ 77°F	4–6 hours
FILL SERVICE, @ 77°F	7 days
RECOAT WINDOW	-

SURFACE TEMPERATURE

	60-69°F	70-89°F	90°F
RECOAT (MIN)	6-8 hours	4-5 hours	2-3 hours
RECOAT (MAX)	20-24 hours	12-16 hours	6-8 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. Refer to Material Safety Data Sheet for detailed safety precautions.
6. For industrial/commercial use. Installation by trained personnel only.

SURFACE PREPARATION

STEEL: For immersion service, “White Metal” abrasive blast with an anchor profile of 4–5 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

Use the following instructions for both the NovoRez 353BC (Basecoat) and NovoRez 353TC (Topcoat):

NOTE: *NovoRez 353BC Basecoat promotes adhesion while NovoRez 353TC Topcoat provides increased chemical resistance. These products are formulated for use together as a system, and should not be used individually.*

1. Component A Resin should be premixed prior to using due to possible pigment settling that may occur during transportation and storage.
2. **OPTIONAL STEP:** If product will be spray applied, sprayability can be improved by mixing 5–10% (by total volume) toluene into Component A Resin prior to adding Component B Hardener.
3. Pour Component B Hardener into the Component A Resin pail and mix with a mechanical jiffy-type mixer operated at low speed until a uniform blend is attained. 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.

NOTE: *Do not overmix. Product will become increasingly viscous if overmixed.*

NOTE: *Do not turn the pail upside down and allow to drain onto substrate.*

4. Apply by brush, roller or spray.
NOTE: *Do not exceed recommended application thickness; doing so will result in stress build-up within the coating, resulting in cracking and delamination.*
5. After the basecoat has become slightly tack free (within approximately 4 hours @ 70°F), prepare and apply a coat of NovoRez 353TC Topcoat resin/hardener mixture following the instructions outlined in Steps 1–4.
NOTE: *If the basecoat becomes glossy and/or hard to the touch, a light sanding followed by a wipe with a 50:50 mixture of water and isopropanol will be necessary before applying the topcoat. Allow the solvent to flash before applying topcoat.*

2R:1H / DOC NR353-TDS

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