



# NSP SPECIALTY PRODUCTS

## Technical Data Sheet

### NSP 155 Epoxy Binder Resin

**Description:** NSP 155 Epoxy Binder Resin is a 100% solids, two component, clear binder material used for patching/resurfacing worn and eroded concrete floors. With the addition of graded aggregates, this epoxy matrix repairs and protects concrete floor areas subjected to the harsh effects of high impact, abrasion and strong chemicals. NSP 155 Epoxy Binder Resin is ideal for slurry, grout (repair), and 1/8" broadcast or 1/4" trowel systems. This economical epoxy can also be used as a binder for decorative colored quartz applications.

#### Intended

**Uses:** Traffic Aisles, Docks, Ramps, Kitchens, Utility/Storage Rooms, Sumps, Pump Pads, Water and Waste Treatment, Warehouse and Processing Floors, Packaging Areas and Concrete Maintenance Repair

#### Product

**Features:** Moisture Tolerant – No V.O.C. Formula  
Water Clear Resin/Hardener  
Environmentally sound  
High loading capability with versatile applications  
Tenacious adhesion to properly prepared surfaces  
Resurfaces deteriorated concrete  
Easy two to one mixing ratio  
Can be top coated with other NSP High Performance Coatings

#### Physical

**Data:** Type: Modified Epoxy Resin/Proprietary Blend Amine Adduct Hardener  
Color: Clear  
Components: Two  
Gloss: High  
Mixed Ratio: 2 Parts A (Resin): 1 Part B (Hardener) by volume  
Volume Solids: 100% - VOC 0 lbs/gal  
Pot Life @ 77F/25C: 20 minutes  
Maximum Recommended Service Temperature: Dry Air Temp. 200F/93C  
Application Temperatures: 50-90F (10-32C)  
Minimum Recoat Time @ 77F/25C: 4 hours  
Maximum Recoat Time @ 77F/25C: 24 hours  
Minimum Cure Time – Full Service @ 77F/25C: 24 hours



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#### Physical

**Data:** Minimum Recommended Thickness (System): 1/8" /125 mils  
Maximum Recommended Thickness: N/A  
Theoretical Coverage Applied With Graded Aggregate: 1/4" Trowel Down System = 250 mils or 6.4 sq/ft/gal  
Theoretical Coverage: 1/8" Broadcast System – 125 mils or 35 sq/ft/gal  
Thinner: Do not thin  
Packaging: Pre-proportioned 3 Gallon and 15-Gallon Kit and 150 Gallon Kits in Drums

**Limitations:** This product may not cure properly in temperatures below 50 F (10 C)  
All epoxies will show chalking/yellowing on exterior exposures. Application of epoxy coatings in cool temperatures and high humidity can result in the formation of amine blush. Blush may appear as a milky, white, tacky residue on the surface of the cured coating and must be removed before the application of another coat. Intercoat adhesion problems may occur if blush is not removed.

**Surface Preparation:** Concrete must be properly cured for a minimum of 28 days before application of coating. Surface must be entirely free of oil, grease, dirt, detergent, surface water, laitance, curing compounds, coatings or other contaminants that may interfere with adhesion. The concrete must be abrasive blasted or scarified to provide a profile for adhesion. Final prepared surface should be clean and rough. Consult SSPC-SP13 – Surface Preparation of Concrete. The minimum recommended profile can be seen in the chart below:

COATING SYSTEM THICKNESS	MINIMUM RECOMMENDED PROFILE
1/8 INCH	25 MILS
1/8-1/4 INCH	40 MILS

**Mixing Instructions:** This is a two-component system. Prior to mixing, components A Resin and B Hardener should be at room temperature (60-75 F/16-24C). Pour Part B Hardener into Part A Resin. Mix for 2 minutes using a Jiffy mixer head and a mechanical drill. To ensure complete mixing, scrape sides and bottom of container and continue mixing for an additional minute. For trowel systems only, a mud paddle-mortar mixer is required for mixing aggregate systems. After mixing resin and hardener using above method, continue mixing while slowly adding desired aggregate. Continue to mix using a mud paddle – mortar mixer until uniform. Do not mix more material than can be applied within the pot life. DO NOT HAND MIX. Begin application immediately – no induction time required.



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**Application:** Air and surface temperature should be between 50-90F/10-32C. Do not begin application if air, substrate or material temperature is below 50 F/10C or expected to fall below 50F/10C within 12 hours of application. Do not begin application if dew point is within 5F/3C of the temperature. Variations in temperature can affect pot life properties of this material. . Clean up using Acetone or other Ketone Solvent. Primer – Selection of the appropriate NSP Primer is recommended for use with NSP 155 Epoxy Resin Binder.

#### Recommended

##### Systems:

##### 1/8" Broadcast System-

Primer: Select NSP Primer for your particular application needs.

First Intermediate Coat: Apply one coat of NSP 155 Epoxy Binder Resin with notched squeegee followed by phenolic core roller to 15 mils WFT. Immediately broadcast silica or other aggregate to excess on wet film until binder resin can't be seen. Allow first intermediate coat to cure for 4 hours @ 77 Deg before proceeding to second intermediate coat. Any high spots or irregular areas should be smoothed before application of another coat.

Second Intermediate Coat: Apply one coat of NSP 155 Epoxy Binder Resin to 15 mils WFT.

Immediately broadcast silica or other aggregate to excess on wet film until binder resin can't be seen. Allow second intermediate coat to cure for 4 hours @ 77 Deg before proceeding to finish coat. Sweep excess aggregate using stiff bristled broom and vacuum. Any high spots or irregular areas should be smoothed before finish coat.

Finish Coat: NSP 155 Epoxy Binder Resin applied by notched squeegee followed by phenolic core roller to 15 mils WFT. Do not allow material to puddle. Smooth out to uniform finish and allow curing for a minimum of 24 hours before allowing traffic.

##### 1/4" Trowel System-

Primer: Select NSP Primer for your particular application needs.

Intermediate or Finish Coat: NSP 155 Epoxy Binder Resin mixed with graded aggregate applied by screed rake followed by a hand trowel to approx. 6.4 sq/ft/gal. Apply pressure with trowel to smooth and compact into a monolithic surface. Allow to cure for a minimum of 6 hours @ 77 Deg before allowing foot traffic. System will be ready for full traffic within 24 hours. This coat may be top coated with any of NSP High Performance Coatings for added protection. Minimum and maximum recoat times must be observed.

#### Method of

**Application:** Hand Trowel, Squeegee or Screed Rake



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#### Storage & Shelf Life:

Shelf life is 12 months from the date of manufacture when stored in unopened containers and under recommended conditions. Material should be stored in a dry area under cover at temperatures between 45-95F/7-35C. It is recommended that the coating components be kept inside at a minimum of 60F/16C for 24 hours prior to start of application. Keep away from heat, flame and ignition sources.

#### Warning & Safety:

##### **FOR INDUSTRIAL USE ONLY – KEEP AWAY FROM CHILDREN**

Refer to Material Safety Data Sheet for NSP 155 Part A and B supplied with this product prior to application. MSDS may be obtained via web site at [www.nsp-specialty.com](http://www.nsp-specialty.com), fax 910-235-3902 or by calling 800-248-8907. Use only with adequate ventilation and avoid breathing mist or vapors. Prevent contact with skin and eyes with protective clothing/impervious gloves and goggles. Do not take internally. Wash thoroughly after handling.

#### Disclaimer & Limited Warranty:

The information contained herein is intended to acquaint you with this product and is not intended to be exhaustive. This information is subject to modification from time to time without further notice. No agent, employee or representative of Seller has the authority to bind Seller to any oral affirmation, recommendation or representation of warranty unless contained in a written agreement signed by both Buyer and Seller. Seller expressly disclaims all other warranties, express or implied, including but not limited to any implied warranties of merchantability of fitness for a particular purpose or any other warranties relating to the condition of this product. Furthermore, Buyer acknowledges that it is familiar with and experienced in the use of industrial coating products and expressly assumes all responsibility resulting from or in any way connected with the possession, transportation, handling or use of this product, whether singly or in combination with other products. Seller's liability, with respect to any claim arising out of or relating to Buyer's purchase, possession or use of this product, is expressly limited to, at Seller's option, (i) replacement of the product, or (ii) return of the purchase price with transportation charges incurred by the Buyer, if material is proven defective. Any claim for defective product must be received in writing within one year from the date of shipment. Seller assumes no responsibility for incidental or consequential damages, or for any other damages related to any alleged nonconformity or defect in the product or to its purchase, possession or use.