NSP SPECIALTY PRODUCTS

Technical Data Sheet

NSP 500ST Epoxy Mastic

Description: NSP 500ST is a surface and moisture tolerant epoxy specifically formulated for use on steel substrates when abrasive blasting is not possible or permitted. This versatile high solids coating exhibits excellent surface wetting characteristics that allows bonding to surfaces that may not be ideally prepared. 500ST can be used as a high performance primer as well as a topcoat to protect from chemical, abrasion and corrosion attack.

Intended Uses: Maintenance Repair, Waste Treatment, Top Coat for tightly adhered existing epoxies, Machinery/Equipment, Structural Steel, Pumps, Railings, Racks, Paper Machines, High Performance Primer

Product Features:
Moisture tolerant- 12 hour full cure
Ease of application – brush, roller or spray
Self-Priming on steel Surfaces
Tile like, high gloss finish easy to clean and maintain
Exceptional adhesion to tight rust

Approvals: Accepted for use by the USDA in Federally Inspected Meat/Poultry Plants

Physical Data:
Type: Modified Epoxy Resin/Proprietary Blend Amine Adduct Hardener
Color: White, Black, Tile Red, Light Gray. Safety Colors and other non-standard colors available upon request
Components: Two
Gloss: High
Mixed Ratio: 2 Parts A (Resin): 1 Part B (Hardener) by volume
Volume Solids: 97% +/ - 0.5% -VOC (0.17- 0.25 lbs/gallon)
Pot Life @ 77F/25C: 30 minutes
Maximum Recommended Service Temperature: Dry Air 300F/149C
Application Temperatures: 50-90F (10-32C)
Minimum Recoat Time @ 77F/25C: 3 hours
Maximum Recoat Time @ 77F/25C: 48 hours
Minimum Cure Time – Full Service @ 77F/25C: 12 hours
Sag @ 77F/25C: 16 mils
Theoretical Coverage: 1604 sq/ft/gal/mil – Allow for appropriate loss
Maximum Thinner (if necessary): 10% by volume with NSP-T1 Thinner
Packaging: Pre-portioned 3 Qt. Kit/ 3 Gal Kit/ 15 Gal Kit

Toll Free: 800-248-8907 or 910-235-0468

NSP 500ST Epoxy Mastic

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: *Optimum Results* – SSPC-SP11 Power Tool Cleaning to Bare Metal
If SSPC-SP11 is not an option – Surfaces should be prepared in accordance with a combination of SSPC-SP2 Hand Tool Cleaning/SSPC-SP Power Tool Cleaning. It is highly recommended that preparation and priming be done as soon as possible to prevent corrosion of the newly prepared surface.

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 3 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 1 or 2 minutes. Do not mix more material than can be applied within the pot life. DO NOT HAND MIX. Begin application immediately – no induction time.

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 and sag properties of this material. Do not exceed 20% by volume of thinner with NSP-T1 Thinner. NSP-T1 Thinner will not clean hoses or equipment adequately. . Clean up using Acetone or other Ketone Solvent. For concrete surfaces, a primer coat of either NSP 100, 101 and 110 is strongly recommended

Method of Application: Brush, Phenolic Core Roller, Airless Spray

Toll Free: 800-248-8907 or 910-235-0468

NSP 500ST Epoxy Mastic

Recommended Equipment: *Airless Spray*

Pump - a minimum of 30:1 - preferred 45:1
Tip Range - .023 to .027
Hose - 3/8" I.D. if less than 50 ft. - greater than 50 ft. use 1/2" (3500 psi High Pressure Spray Hose)
Pressure (in) 90 cfm minimum @100 psi
Pressure at the tip - increase pressure slowly to 2000 psi and fine tune to achieve proper spray pattern. Check condition of fan at spray tip. During the first seconds of spraying, the material will often finger. Raise or lower pressure to adjust width. Periodically check pressure gauges while spraying. Knowing operating pressure will be useful in analyzing any changes to your spray pattern.
Whip – 3'- 5' and 1/4" ID Hose
Take care to prevent mixed material from setting up in hoses. For optimum results, keep hose as short as possible, out of direct sunlight or away from heat. Purge immediately after spraying with Acetone or Ketone solvent. Cured material must be mechanically removed.

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 500 Part A and B supplied with this product prior to application. SDS may be obtained via web site at www.nsp-specialty.com 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.

NSP 500ST Epoxy Mastic

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. Sellers 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.

Toll Free: 800-248-8907 or 910-235-0468