National Polymers, Inc. – 800.831.5600 HEAVY DUTY TRAFFIC SYSTEM (60.2 mils dry), VOC<250 g/L

System Components:



Primer/Sealer: NP013, Two Component, Water based Epoxy Primer/Sealer *Base Membrane:* NP863B, Non-Gassing, Single Component, Moisture Cured Polyurethane Membrane

Intermediate Membrane: NP865IT, High Performance Aromatic Polyurethane *Aggregate:* Deck Coating Sand (16/20 Mesh)

Intermediate Membrane: NP865IT, High Performance Aromatic Polyurethane *Aggregate:* Deck Coating Sand (16/20 Mesh)

Topcoat: NP886T, High Solids, Moisture Cured, Industrial Maintenance Coating

Component Properties

PRIMER: NP013 Two Component Water based

Epoxy Primer/Sealer			
Property	Typical Value		
Solids:	$43 \pm 2\%$		
Viscosity (77ºF):	400-900 cps		
Flash Point:	Above 200°F		
Cured Film Flexibility: Passes 1/8 in. Mandrel Bell			
Impact Resistance: Gardner Impact, direct = 50 in. lb.			
(passed)			
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Mix Ratio: Four Parts A to One Part B by volume

BASE: NP863B Non-Gassing, Single Component, Moisture Cured, Polyurethane Membrane

Property	Typical Value	Test Method		
Solids:	86 ± 2%	ASTM D-1353		
Viscosity (77°F):	50-80 poise	ASTM Brookfield		
Flash Point:	Above 120°F	ASTM D-93		
Tensile Strength	900 +/- 100 psi	ASTM D-412		
Elongation	500 +/- 100 psi	ASTM D-412		
Hardness Shore A 65 +/- 5		ASTM D-2240		
Tear Resistance	150 +/- 25 lbs/in	ASTM D-4541		
Adhesive Bond Strength: 195 psi cohesive failure				
(ASTM D-4541)				

INTERMEDIATE: NP865IT High Performance Aromatic Polyurethane Coating

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Property	Typical Value	Test Method		
Solids:	78 ± 2%	ASTM D-1353		
Viscosity (77°F):	25-35 poise	ASTM Brookfield		
Flash Point:	Above 116°F	ASTM D-93		
Tensile Strength	3300 +/- 300 psi	ASTM D-412		
Elongation	225 +/- 50%	ASTM D-412		
Hardness Shore A 90 +/- 5		ASTM D-2240		
Tear Resistance	300 +/- 50 lbs/in	ASTM D-1004		
Adhesive Bond Strength: 30 pli to base coat				

TOP: NP866T High Solids, Moisture Cured,

Industrial	Maintenance	Coating
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Property	Typical Value	Test Method		
Solids:	$78 \pm 2\%$	ASTM D-1353		
Viscosity (77°F):	25-35 poise	ASTM Brookfield		
Flash Point:	Above 116°F	ASTM D-93		
Tensile Strength	3300 +/- 300 psi	ASTM D-412		
Elongation	200 +/- 50%	ASTM D-412		
Hardness Shore A 90 +/- 5		ASTM D-2240		
Tear Resistance	350 +/- 50 lbs/in	ASTM D-1004		
Weather Resistance: No chalking @ 2000 hours				
(ASTM G-23)				
Water Vapor Permeability: 0.1 perms (ASTM D-96)				
Adhesive Bond Strength: 30 pli to base coat				
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Abrasion Resistance, inch loss: less than 0.002 (ASTM C-502 Tabor Abrasion, 1000 Rev. with 1000 Gm Weight, CS-17 Wheel)

HEAVY DUTY TRAFFIC SYSTEM APPLICATION

Surface Preparation: All surfaces must be free of all contamination, including curing compounds, oil, grease, paint, and dirt. Surfaces should be free of roughness or projections, as these will show through in the completed application. Concrete should be profiled by shot blasting, (CSP 3-4 profile) and pressure washed. Allow to dry for at least 24 hours. Hairline cracks up to 1/16" in width and cold joints should be cleaned, primed (see primer detail) and treated using the polyurethane base deck coating extended a minimum distance of 2" on either side of crack to yield thickness of 30 dry mils. Larger cracks over 1/16" in width and joints should be routed, blown clean, and filled flush with a suitable sealant. After sealant has cured, apply base coat material extended a minimum distance of 2" on either side of crack to yield a thickness of 30 dry mils or apply the base coat extended 3" beyond the crack and apply the base coating with embedded reinforcing fabric. Allow the repair to cure, then apply the desired system.

Primer (013) Application: This product comes pre-packaged by weight. Kits should be mixed in their entirety. If partial kits are to be used, refer to the technical data for proper weight mix ratios. After the two parts are combined, mix well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. This product is an emulsion product and should be mixed well before using. The mixed material can be applied by brush or roller. Maintain temperatures within the recommended ranges during the application and curing process. Apply material with relative humidity within the parameters shown on the technical data. When the end of the pot life has been reached, you will find that the material becomes hard to apply and will actually tend to roll back up onto the roller. Do not try to continue application when the coating has reached this step. Applications made at different times with differing environmental conditions, may show slight variations in gloss.

NOTE ON RELATIVE HUMIDITY: Because they are moisture cure product, when applying NP863B, NP865IT, and NP866T, the relative humidity should be greater than 30% and less than 90% during the application and cure. **ACCELERATOR:** NP861A Accelerator may be added to NP863B, NP865IT, and NP866T to allow for a shorter cure time. Refer to the Tech Data/Bulletin for details on using the accelerator

Base Membrane (NP863B) Application: Prior to application ensure the NP013 is dry and free of all contaminants and coated within 16 hours (within 8 hours if substrate temperature is 85°F or above.). NP863B is applied at 32 mils wet, resulting in a 26 mils dry. When applying onto sloped or pitched surfaces, two coats of the NP863B may be required for this coverage, depending on the slope. Allow a minimum of 16-24 hours cure time between coats. NP863B is applied by squeegee, roller or notched trowel. Always follow by back rolling. Application should not commence unless the ambient temperature is 40°F or higher, and should not proceed during inclement weather.

Intermediate (NP865IT) Application: Prior to application ensure the NP863B is dry and free of all contaminants and coated within 16-48 hours. Apply the NP865IT at 16 mils wet, resulting in an 11.4 mils dry. NP865IT is applied by roller, notched squeegee or notched trowel. Always follow by back rolling. Application should not commence unless the ambient temperature is 40°F or higher and should not proceed during inclement weather.

Broadcast Aggregate Application: Broadcast aggregate at the rate of 15-18 pounds per 100 square feet while the NP865IT is still wet. Use 16/20 mesh sand.

Intermediate (NP865IT) Application: Prior to application ensure the NP865IT is dry and free of all contaminants and coated within 16-48 hours. Apply the NP865IT at 16 mils wet, resulting in an 11.4 mils dry. NP865IT is applied by roller, notched squeegee or notched trowel. Always follow by back rolling. Application should not commence unless the ambient temperature is 40°F or higher and should not proceed during inclement weather.

Broadcast Aggregate Application: Broadcast aggregate at the rate of 15-18 pounds per 100 square feet while the NP865IT is still wet. Use 16/20 mesh sand.

Topcoat (NP866T) Application: Prior to application, the broadcasted NP865IT should be dry and free of all contaminants and coated within 16-48 hours after the broadcast application. Apply the NP866T at 20 mils wet, resulting in a film thickness of 14.3 mils dry. Coverage will vary depending on the aggregate size, texture or degree of surface porosity. The larger the aggregate used, the lower the coverage due to the greater surface area being covered. NP866T is applied by squeegee, roller, or notched trowel. Always follow by back rolling. At 50% relative humidity and 77°F, the coating will be dry to the touch within 16 hours. Traffic should not be allowed on the finished coating for 24 hours. *For detailed information on any of the products, read the product's technical data sheet.*