



Nason[®] Industrial NI-680 DTM PU Topcoat

Product Description

NI-680 is a 2 pack glossy, high film build and isocyanate cured polyurethane topcoat, designed for application as direct-to-metal (DTM). This product is based on Axalta owned technology resulting with a highly durable coating, which delivers outstanding weathering and good anti-corrosion properties. Nason[®] Industrial NI-680 is a mix system using custom colour Mix binder ST100-680 and concentrated Nason[®] Industrial tints that enables matching industrial and standard colours.

Gloss

85 – 90 GU @ 60°

Colour

White; Black; Golden Yellow; AS 2700 colours.

Product Features

- Excellent mechanical properties
- Excellent weathering durability
- Good anticorrosion properties
- Good appearance
- Tintable

Product Benefits

- Long lasting film integrity & durability
- High quality high gloss finish
- Extended service life
- Use for manufacturing & material handling
- Fast turnaround time & high productivity

Product Uses / Applications

Direct-To-Metal on hot rolled carbon steel, weathered and properly treated galvanized, aluminium with outstanding weathering and good anti-corrosion properties.

- Commercial transport & components;
 - Mobile mining, earth moving, construction and agricultural equipment & attachments;
 - Fabricated structural steel, handrails;
 - Material handling equipment;
 - Industrial plant equipment and machinery (including chemical plants);
 - Pipeline and tank exteriors.
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Not Recommended for

As a one coat system in severely corrosive environments.
Immersion service.
Application over alkyd primers and TPA coatings

Physical Data (depending on colour)

	ST100-680	ST200-546	RTS
Volume Solids (average):	46.0%	64.7%	41 – 43%
Weight Solids (average):	65.5%	70.9%	57 – 60%
VOC (average):			480 – 500 g/L
Specific Gravity (mixed, average):	1.21 g/mL	1.06 g/mL	1.20 – 1.30 g/L
Dry Film Thickness:	90 - 120 µm		
Theoretical Coverage (average):	3.5 – 4.5 m ² /L (at 120 µm DFT)		
Flash Point:	34°C	37-41.5 °C	



Dry Time

Air Dry at 25°C & 50% RH at 100 microns dry film thickness:
Dust Free: 30 - 45 minutes Dry to Handle: 2 - 4 hours
Hard Dry: 24 hours

Bake: Approx. 30 minutes @ 60°C after 30 minutes flash-off @ 20°C (depending on film build)

Surface Preparation

Previously painted surface:

Clean using an Axalta recommended wax and grease remover. For aluminium, use a final wash with 821-65 Nason Industrial Multipurpose Thinner.

Sand well or well scour with 3M Scotch Brite Pad red, and subsequently re-clean all the areas before the application of Nason® Industrial NI-680 DTM PU Topcoat.

Test suitability of the existing coating before application of Nason® Industrial NI-680 DTM PU Topcoat.

New work:

Can be applied as Direct-To-Metal over properly prepared and sanded: aluminium (P240-320), steel, and weathered galvanized surfaces.

All surfaces should be cleaned with solvent (SSPC-SP1) to remove any grease or oil contamination prior to priming.

- For best results on steel, abrasive blast surface to an SSPC-SP-6 Commercial Blast. Profile should be 2.0 to 2.5 mils. Average peak to valley surface profile shall be 1.5 to 2.5 mils. If blasting is not possible or practical, then Hand Tool Clean to an SSPC-SP 2 or Power Tool Clean to an SSPC-SP 3 may be used with sacrifice in performance vs blasted surfaces.
- Aluminum surfaces should be properly treated. Surface preparations must include sanding or brush off blasting (SSPC-SP7), Alodine treatment or other preparation necessary to ensure adhesion.
- Can be applied over other surface preparations, such as phosphatizing.

Galvanized steel surface preparation may include detergent washing, pre-treatment and must include sanding/abrasion for new surfaces; for weathered surfaces, detergent washing and sanding. For new galvanized surfaces, an appropriate primer should be used.

Technical data sheet



Application

Mix 4:1 with ST200-546 Nason® Industrial 2K PU HS Slow Activator, and 10-20% with Nason® Industrial ST300-501 Thinner Slow or ET755A thinners (5% thinner required for airless application).

Pot Life: Sprayable at 1-1.5hrs @ 20C with 10% ST300-501 or ET755A thinners. Maximum pot life of 2-2.5hrs @ 20C is achieved when using 20% ST300-501 or ET755A thinners.

Gun Setup

• Pressure Pot:	1.1 mm	2.5 – 3.5 bar	40 – 50 psi
• Conventional:	1.5 – 1.8 mm	2.5 – 3.5 bar	40 – 50 psi
• Airless Spray:	0.28 mm	100 bar	
• HVLP:	1.5 – 1.8 mm	0.7 bar	10 psi
• Number of Coats:	2 – 3 (for 90-120 µm dry film thickness)		
• Flash-off Between Coats:	15 - 20 minutes		



Application Conditions

Do not apply if material, substrate or ambient temperature is less than 10°C or above 45°C. The Substrate must be at least 3°C above the dew point. Relative humidity should be below 90%.

Cleanup Solvents

Axalta recommended gun cleaning thinner.

Recoating

Thoroughly scuff the surface with 3M Scotch Brite Pad grey.
Recoat with 1 – 2 coats of Nason® Industrial NI-680 DTM PU Topcoat, as necessary.

Shelf Life

24 months minimum in sealed original container
Store at room temperature away from direct sunlight.

Availability

Nason® Industrial Tints		ST-XX
Nason® Industrial DTM PU Topcoat	20 L	NI-680
Nason® Industrial ST680 DTM Binder	10 L	ST100-680
Nason® Industrial ST680 DTM Binder	20 L	ST100-680
Nason® Industrial 2K PU HS Slow Activator	1 L	ST200-546
Nason® Industrial 2K PU HS Slow Activator	5 L	ST200-546
Nason® Industrial ST501 Thinner Slow	5 L	ST300-501
Nason® Industrial ST501 Thinner Slow	20 L	ST300-501
Imron Fleetline ET755A Thinner slow	20 L	ET755A

This product is intended for use by professional trade and industrial applicators in compliance with relevant Health, Safety & Environmental standards and legislation.
The applicator must use suitable Personal Protective Equipment (PPE), in particular full body coverall, gloves, goggles and air respirator. Provide adequate ventilation when using in confined spaces

This product, when mixed with hardener will contain free isocyanates. For more detailed information, refer to Material Safety Data Sheets of the products used.

This Technical Data Sheet is issued by Axalta Coatings Systems as a guidance only. The information contained herein is current and correct to the best of our knowledge at the time of issuance.
The user must ensure suitability of the product and its performance for the application at hand. Axalta Coating Systems assumes no responsibility nor provides any warranty.