



# Nason® Industrial NI-610 High Performance 2K PU Topcoat

## Product Description

NI-610 is a "High Performing" 2 pack (2K) high gloss, isocyanate cured polyurethane topcoat based on Axalta owned technology. The resulting durable coating delivers excellent weathering and anti-corrosion properties (when applied over the recommended primers & Primer surfacers) and is suitable for use where a high performance type of 2K PU coating is required.

## Gloss

High.

**Note:** To adjust gloss level, addition of ST600-002 Nason® Industrial Matting Agent is needed. Refer Table 1, for guidance.

## Colour

Various, AS 2700 colours  
610-38 High Opacity White

## Product Features

- Excellent gloss & colour retention
- Excellent flow and application properties
- Hard and abrasion resistant
- Excellent chemical resistance
- Fast dust free drying time
- Range of hardeners and thinners

## Product Benefits

- Long lasting film integrity & durability
- Superior quality and high gloss finish
- Extended service life
- Use for manufacturing & material handling
- Fast turnaround time & high productivity
- Flexibility in application & performance

## Product Uses / Applications

The product provides excellent topcoat appearance and protection of properly primed metal surfaces in industrial environments. It is suitable for painting and refurbishment of machinery and any article that requires a better than standard style 2K PU performance. This topcoat can be applied over properly prepared Nason® Industrial primers and surfacer coated substrates.

- 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)
- Topsides of marine pleasure craft
- Pipeline and tank exteriors

## Not Recommended for

Immersion service.

Application over alkyd primers and TPA coatings.

### Physical Data (depending on colour)

	ST100-610	ST200-545/54	RTS
Volume Solids (average):	42.5%	64.7%	43 - 47%
Weight Solids (average):	49.4%	70.9%	49 - 63%
VOC (average):	476 - 502 g/L		
Specific Gravity (average):	0.99 g/mL	1.06 g/mL	0.99 - 1.30 g/L
Dry Film Thickness:	40 - 60 µm		
Theoretical Coverage (average):	8.4 - 9.2 m <sup>2</sup> /L (at 50 µm DFT)		
Flash Point:	34°C	37-41.5 °C	



### Dry Time

**Air Dry** at 20°C & 50% RH at recommended film thickness:

Dust Free: 30 minutes

Dry to Handle: 6 - 8 hours

Hard Dry: 24 hours

**Bake:** 45 minutes @ 60°C after 10 - 15 minutes flash-off @ 20°C.

**Accelerator:** Drying times can be reduced by using 718-68 Nason Industrial 2K PU Accelerator as a part replacement for the reducer during paint mixing. See Table 2 for guidance.

**Note:** For activator/reducer selection guides, please refer to tables 3 & 4.

### Surface Preparation

#### Previously painted surface:

Clean using an Axalta recommended wax and grease remover.

Lightly sand or scour with 3M Scotch Brite Pad grey, and subsequently re-clean all the areas before the application of Nason® Industrial NI-610 High Performance 2K Polyurethane Topcoat.

Test suitability of the existing coating before application of Nason® Industrial NI-610 High Performance 2K Polyurethane Topcoat.

#### New work:

To be applied as a finish coat over an Axalta recommended primer e.g. Nason® Industrial Etch Primers, 650-04 Nason® Industrial 2K ZP Epoxy Primer, 617-63 2K AM Epoxy Primer, Corlar 2.1 ST and the 309-03 Nason Industrial 2K P/U Primer White.



### Application

Mix 4:1 with ST200-545 Nason® Industrial 2K PU HS Activator or ST200-546 Nason® Industrial 2K PU HS Slow Activator, and 0 - 20% Nason® Industrial ST300-501 Thinner Slow or Nason® Industrial ST300-502 Thinner Standard (no thinner required for airless application).

Pot Life: 4 hours @ 10°C, 3 hours @ 25°C, 1 hour @ 40°C

### Gun Setup

• Pressure Pot:	1.1 mm	2.5 - 3.5 bar	40 - 50 psi
• Conventional:	1.3 - 1.4 mm	2.5 - 3.5 bar	40 - 50 psi
• Airless Spray:	0.23 - 0.30 mm	180 bar	
• HVLP:	1.3 - 1.4 mm	0.7 bar	10 psi
• Number of Coats:	2 - 3		
• Flash-off Between Coats:	5 - 10 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.

### Dry Film Characteristics

Maximum Service Temperature:	90°C (continuous service)
Exterior Exposure:	VERY GOOD
Water Resistance:	VERY GOOD
Acid / Alkali Resistance:	VERY GOOD
Oil and Petrol Resistance:	VERY GOOD
Abrasion Resistance:	VERY GOOD

**Table 1- Gloss Adjustment information – guidance only**

ST610 : ST002 Mixing Ratio	N14 White	B21 Ultramarine Blue	R13 Signal Red
wt/wt	Average gloss @60°	Average gloss @60°	Average gloss @60°
0 - 100	10	2.5	14
10:90	25	10	21
20:80	30	27	42
30:70	44	41	53
40:60	57	60	66
50:50	71	74	78
60:40	73	80	82
70:30	84	83	87
80:20	88	87	88
90:10	90	90	90
100 - 0	92	92	91



Note: above mix ratios represent the portion of the colour formula binder level replaced with ST002.

**Table 2 – Accelerated Drying information – guidance only**



Property	ST502 / 718-68	ST502 / 718-68	ST502 / 718-68	ST502 / 718-68
N14 White	15/0	10/5	5/10	0/15
Viscosity Initial (s)	18.9	19.6	19.2	18.9
Viscosity 1hr(s)	20.8	23.2	27.8	36.5
Viscosity 2hr(s)	21.3	35.9	87.7	gel
Viscosity 3hr(s)	22.1	52.8	gel	gel
Dust dry time	90min	30min	30min	30min
Touch dry	220min	120min	60min	50min
R13 Signal Red				
Viscosity Initial (s)	21.4	21.2	21.4	22.4
Viscosity 1hr(s)	25.4	28.5	36.3	49.6
Viscosity 2hr(s)	27.2	41.5	60	gel
Viscosity 3hr(s)	29.8	60	gel	gel
Dust dry time	120min	40min	40min	40min
Touch dry	240min	125min	60min	45min

Note: Laboratory test conducted @ 20C & RH 53%, with average dry film builds of 80-100um, and using standard reducer ST502. Reduction of activated colour was 15%, using the 718-68 Accelerator replacement ratios shown

**Table 3 – Activator Selection Guide**

Ambient Temperature			10°C	15°C	20°C	25°C	30°C	35°C	40°C
ST100-610 High OH PU Topcoat	Air Dry or Bake (45 min @60C)	ST200-545 (Standard)							
		ST200-546 (Slow)							

**Table 4 – Reducer Selection Guide**

Ambient Temperature			10°C	15°C	20°C	25°C	30°C	35°C	40°C
ST100-610 High OH PU Topcoat	Air Dry or Bake (45 min @60C)	ST300-502 (Standard)							
		ST300-501 (Slow)							

## Recoating

Thoroughly scuff the surface with 3M Scotch Brite Pad grey.  
Recoat with 1 – 2 coats of, Nason® Industrial NI-610 High Performance 2K Polyurethane 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 High Performance 2K PU Topcoat	20 L	NI-610
Nason® Industrial ST610 High OH PU Binder	20 L	ST100-610
Nason® Industrial ST610 High OH PU Binder	10 L	ST100-610
Nason® Industrial ST610 High OH PU Binder	4 L	ST100-610
Nason® Industrial 2K PU HS Activator	1 L	ST200-545
Nason® Industrial 2K PU HS Activator	5 L	ST200-545
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
Nason® Industrial ST502 Thinner Standard	5 L	ST300-502
Nason® Industrial ST502 Thinner Standard	20 L	ST300-502
Nason® Industrial ST002 Matting Agent	4 L	ST600-002
Nason Industrial 718-68 2K PU Accelerator	1 L	718-68

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.