

# Nano-Clear NCI Industrial Coating - Competitive Analysis

Property	Method	Nano-Clear® NCI Coating	Axalta IMRON® 2.1 HG-C	Axalta IMRON® 3.5 HG-D	PPG Amercoat PSX® 700
Mfg. Recommended Use		Newly Painted or In-Service Painted	Newly Painted Only	Newly Painted Only	Newly Painted Only
Polymer Chemistry		Nanostructured Polyurethane / Polyurea Hybrid	Polyurethane Copolymer	Polyurethane	Epoxy Polysiloxane Hybrid
Mixing Ratio	Ratio	1K - no mixing	1K – no mixing	2:1 Mix Ratio	4:1 Mix Ratio
Recommended Dry Film Thickness (mils)	ASTM D5796	2 mil	3 mils	5 mils	5 mils
Pencil Hardness	ASTM D3363	4H - 8H (matte version)	H	F	N/A
Pendulum Hardness (Persoz)	ASTM D4366	220	N/A	24	N/A
Abrasion Resistance (CS-17, 1 kg, 1000 cycles)	ASTM D4060	8.4 mg loss	N/A	N/A	53 mg loss
Impact Strength (kg-cm)	ASTM D2794	> 140	> 160	> 100	N/A
Water Immersion Test	ISO 2812-2	Pass	Pass	Pass	Pass
QUV Resistance (> 1500 hours)	ASTM D4587	100%	94%	90%	50%
Xenon WOM (> 2000 hours)	ASTM G155	99%	N/A	N/A	N/A
MEK Resistance	ASTM D4752	>1500	>200	>100	>100
Salt Spray (1000 hours)	ASTM B-117	No rust, no blisters @ 5000 hours	No rust, no blisters @ 1000 hours	No rust, no blisters @ 1000 hours	No rust, no blisters @ 1000 hours
DMTA – Crosslink Density	XLD (X103 mol/m3)	2.17	N/A	N/A	N/A
<b>Competitive Analysis</b>		<i>NCI won the 2019 NACE Innovation Award and 2019 Frost &amp; Sullivan Technology Leadership Award.</i>	<i>NCI has 4X better scratch resistance and Imron is only for newly painted.</i>	<i>NCI has 5X better scratch resistance and Imron is only for newly painted.</i>	<i>NCI has 6X better abrasion resistance, 50% better UV resistance + 50% less DFT.</i>