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## Clear Nylon Series: Novadyn™ CR144HI

Novadyn™ CR144HI is a high viscosity, semi-aromatic copolymer. In addition to superior chemical resistance and barrier properties, this resin offers high stiffness, strength and toughness. Typically, this resin is processed by injection molding and extrusion. Due to partial miscibility with other nylons, Novadyn™ CR144HI resin can be extruded in blends with other polyamide resins.

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Functional Additive Bi-Layer Processing Gas/Oxygen Barrier

Injection Molding Crystallization Retarder Films

## **Typical Properties**

Physical Properties	Typical Values	Unit	Test Standard
Density	1.18	g/cm³	ASTM D792
Water Absorption (24hr Immersion)	0.52	%	ASTM D570
Relative Viscosity (96% Sulfuric Acid)	~1.44		ISO 307
Melt Flow Rate (250°C w/ 2,160g)	~ 8.5	g/10min	ASTM D1238

Thermal Properties	Typical Values	Unit	Test Standard
Mold Shrinkage (Flow Direction)	0.68	%	ASTM D955
Glass Transition Temperature	128	°C	DSC
Heat Deflection Temperature (0.46MPa)	113	°C	ASTM D648
Burning Behavior at 0.8 & 1.6 mm Thickness	V-2	Class	UL 94 VB Test
Burning Behavior at 3.2 mm Thickness	V-0	Class	UL 94 VB Test

Mechanical Properties	DAM	Unit	Test Standard
Tensile Modulus	2860	MPa	ASTM D638
Tensile Stress at Yield	101	MPa	ASTM D638
Tensile Strain at Yield	7.2	%	ASTM D638
Tensile Stress at Break	68	MPa	ASTM D638
Tensile Strain at Break	>150	%	ASTM D638
Flexural Modulus	3040	MPa	ASTM D790
Flexural Stress	130	MPa	ASTM D790
Izod Notched Impact Strength (23°C)	79	J/m	ASTM D256

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