







## 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.

### Applications:

-  Functional Additive
-  Bi-Layer Processing
-  Gas/Oxygen Barrier
-  Injection Molding
-  Crystallization Retarder
-  Films

### Typical Properties

Physical Properties	Typical Values	Unit	Test Standard
<b>Density</b>	1.18	<i>g/cm<sup>3</sup></i>	ASTM D792
<b>Water Absorption</b> (24hr Immersion)	0.52	%	ASTM D570
<b>Relative Viscosity</b> (96% Sulfuric Acid)	~1.44	--	ISO 307
<b>Melt Flow Rate</b> (250°C w/ 2,160g)	~ 8.5	<i>g/10min</i>	ASTM D1238

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

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