



# POLYMER INDUSTRIES

## MECHETEC Nylon Im Typical Properties

Property	Test Method	Units	UNIPA Im
<b>Mechanical</b>			
Specific Gravity	ASTM D792	---	1.06
Tensile Strength	ASTM D638	psi	8,000
Tensile Elongation	ASTM D638	%	200
Tensile Modulus of Elasticity	ASTM D638	psi	325,000
Flexural Strength	ASTM D790	psi	14,000
Flexural Modulus of Elasticity	ASTM D790	psi	300,000
Compression Strength	ASTM D256	psi	15,500
Izod Notched Impact	ASTM D785	ft.- lb./in	1.2
Rockwell Hardness	ASTM D695	M or R scale	R108
<b>Thermal</b>			
Coef. Of Linear Thermal Expansion	ASTM D696	in./in./°F	5.0 x 10 <sup>-5</sup>
Max Continuous Temp.	Internal Std.	°F	200
Heat Defl. Temp. @ 264 psi	ASTM D648	°F	149
Melting Point	ASTM D3418	°F	423
<b>Electrical</b>			
Dielectric Strength-Short Term	ASTM-DI49	volts/mil	---
Dielectric Constant@ 60 Hz	ASTM-DI50	---	6.0
Dielectric Constant@ 10 <sup>6</sup> Hz	ASTM-DI50	---	4.0
Dissipation Factor@ 60 Hz	ASTM-D150	---	0.015
Volume Resistivity	ASTM-D257	ohm-cm	10 <sup>13</sup>
<b>Miscellaneous</b>			
Water Absorption/24 hours	ASTM D792	--	0.25
Water Absorption @ Saturation	ASTM D570	% weight	3.0
Flammability	UL 94	--	HB
Dynamic Coefficient of Friction	Internal Std.	--	0.30
<b>Agency Compliance</b>			
FDA	---	---	No
USDA	---	---	No
NSF	---	---	No

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