

General Information

Product Description

Properties tested in transverse direction (worst case) on 125 mil extruded sheet specimens with less than 10% orientation unless otherwise noted.

General

Material Status	<ul style="list-style-type: none"> <li>Commercial: Active</li> </ul>
Availability	<ul style="list-style-type: none"> <li>North America</li> </ul>
Test Standards Available	<ul style="list-style-type: none"> <li>ASTM</li> <li>ISO 10350</li> </ul>
Features	<ul style="list-style-type: none"> <li>Chemical Resistance, Good</li> <li>Durable</li> <li>Processability, Good</li> <li>Toughness, Good</li> <li>Weather Resistance, Good</li> </ul>
Uses	<ul style="list-style-type: none"> <li>Automotive Applications</li> <li>Profiles</li> <li>Sheet</li> </ul>
Appearance	<ul style="list-style-type: none"> <li>Opaque</li> </ul>
Forms	<ul style="list-style-type: none"> <li>Pellets</li> </ul>
Processing Method	<ul style="list-style-type: none"> <li>Extrusion</li> </ul>
Multi-Point Data	<ul style="list-style-type: none"> <li>Isothermal Stress vs. Strain (ISO 11403-1)</li> <li>Secant Modulus vs. Strain (ISO 11403-1)</li> </ul>

ASTM and ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density -Specific Gravity	1.05	sp gr	23/23°C ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	1.0	g/10 min	ASTM D1238
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	250000	psi	ASTM D638
Tensile Strength @ Yield	4900	psi	ASTM D638
Tensile Strength @ Break	2600	psi	ASTM D638
Flexural Modulus	220000	psi	ASTM D790
Flexural Strength @ Yield	7300	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (-40 °F, 0.125 in) (73 °F, 0.125 in)	1.00 4.00	ft-lb/in	ASTM D256
Instrumented Dart Impact <sup>2</sup> (-40 °F, 0.125 in) (0 °F, 0.125 in) (73 °F, 0.125 in)	Total Energy: 96.0 Total Energy: 180 Total Energy: 336	in-lb	ASTM D3763
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	95		ASTM D785
Thermal	Nominal Value	Unit	Test Method
DTUL @66psi - Unannealed (0.125 in)	198	°F	ASTM D648
DTUL @66psi - Annealed (0.125 in)	207	°F	ASTM D648
DTUL @264psi - Unannealed (0.125 in)	172	°F	ASTM D648
DTUL @264psi - Annealed (0.125 in)	192	°F	ASTM D648
CLTE, Flow	0.000055	in/in/°F	ASTM D696

Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL (0.0300 in, NC) (0.0590 in) (0.130 in)		HB HB HB	UL 94

UL 746	Nominal Value	Unit	Test Method
RTI Str (0.0620 in )	122	°F	UL 746
RTI Imp (0.0620 in )	122	°F	UL 746
RTI Elec (0.0620 in )	122	°F	UL 746

Optical	Nominal Value	Unit	Test Method
Gardner Gloss (60° )	95		ASTM D523

**Additional Properties**

Melt Flow Rate, ASTM D1238, 220°C/10 kg Load: 4.4 g/10 min  
Melt Flow Rate, ASTM D1238, 230°C/10 kg Load: 6.7 g/10 min  
Gloss, ASTM 523, 60°, Formed: 90%

**ISO 10350 Properties <sup>3</sup>**

Rheological properties	Nominal Value	Unit	Test Method
Melt volume-flow rate (220°C/10.0 kg )	0.488	in <sup>3</sup> /10min	ISO 1133

Mechanical properties 23°C/50%r.h.	Nominal Value	Unit	Test Method
Tensile modulus	247000	psi	ISO 527-1, -2
Yield stress	5320	psi	ISO 527-1, -2
Yield strain	3.0	%	ISO 527-1, -2
Nominal strain at break	50.0	%	ISO 527-1, -2
Charpy notched impact strength (+23°C)	15.5	ft-lb/in <sup>2</sup>	ISO 179 /1eA
Charpy notched impact strength (-30°C)	1.38	ft-lb/in <sup>2</sup>	ISO 179 /1eA

Thermal properties	Nominal Value	Unit	Test Method
Temp. of deflection under load (1.80 MPa)	172	°F	ISO 75-1, -2
Temp. of deflection under load (0.45 MPa)	198	°F	ISO 75-1, -2
Vicat softening temperature (50°C/h 50N)	201	°F	ISO 306
Coeff.of linear therm. expansion (parallel)	0.000055	in/in/°F	ISO 11359-1, -2
Burning Behav. at 1.6mm nom. thickn. (0.06 in, UL )	HB		ISO 1210
Burning Behav. at thickness h (0.118 in, UL )	HB		ISO 1210

Electrical properties 23°C/50%r.h.	Nominal Value	Unit	Test Method
Dissipation factor (100 Hz)	0.024		IEC 60250
Dissipation factor (1 MHz)	0.012		IEC 60250

Other properties	Nominal Value	Unit	Test Method
Density	0.0383	lb/in <sup>3</sup>	ISO 1183

Test specimen production	Nominal Value	Unit	Test Method
Processing conditions acc. ISO	ISO 7391-2		
Injection Molding, melt temperature	482	°F	ISO 294
Injection Molding, mold temperature	140	°F	ISO 10724
Injection Molding, injection velocity	8	in/sec	ISO 294
Injection Molding, pressure at hold	8700	psi	ISO 294

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Notes

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<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 8025 in/min

<sup>3</sup> Typical properties: these are not to be construed as specifications. Additional ISO 10350 data and disclaimer information may be found on ISO 10350 Data Sheet.

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