

General Information

Product Description

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

General

Material Status	<ul style="list-style-type: none"> Commercial: Active
Availability	<ul style="list-style-type: none"> North America
Test Standards Available	<ul style="list-style-type: none"> ASTM ISO 10350
Features	<ul style="list-style-type: none"> Chemical Resistance, Good Dimensional Stability, Good Gloss, High Impact Resistance, Good Processability, Good Surface Finish, Good
Uses	<ul style="list-style-type: none"> Automotive Applications Profiles Sheet
Appearance	<ul style="list-style-type: none"> Colors Available Natural Color Opaque
Forms	<ul style="list-style-type: none"> Pellets
Processing Method	<ul style="list-style-type: none"> Coextrusion Extrusion Extrusion, Sheet
Multi-Point Data	<ul style="list-style-type: none"> Isothermal Stress vs. Strain (ISO 11403-1) Secant Modulus vs. Strain (ISO 11403-1)

ASTM and ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density -Specific Gravity	1.04	sp gr 23/23°C	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	1.7	g/10 min	ASTM D1238
Water Absorption @ 24 hrs	1.7	%	ASTM D570
Water Absorption @ Sat.	7.7	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	270000	psi	ASTM D638
Tensile Strength @ Yield	5100	psi	ASTM D638
Flexural Modulus	270000	psi	ASTM D790
Flexural Strength @ Yield	8000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
(-40 °F, 0.125 in)	2.20	ft-lb/in	
(73 °F, 0.125 in)	6.30	ft-lb/in	
Instrumented Dart Impact			ASTM D3763
(-40 °F) ²	Total Energy: 276	in-lb	
(-40 °F, 0.125 in)	204	in-lb	
(0 °F) ²	Total Energy: 360	in-lb	
(73 °F) ²	Total Energy: 408	in-lb	
(73 °F, 0.125 in)	312	in-lb	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	102		ASTM D785

Thermal	Nominal Value	Unit	Test Method
DTUL @66psi - Unannealed (0.125 in)	196	°F	ASTM D648
DTUL @66psi - Annealed (0.125 in)	210	°F	ASTM D648
DTUL @264psi - Unannealed (0.125 in)	183	°F	ASTM D648
DTUL @264psi - Annealed (0.125 in)	198	°F	ASTM D648
CLTE, Flow	0.000052	in/in/°F	ASTM D696

Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL (0.0570 in) (0.118 in)	HB HB		UL 94

UL 746	Nominal Value	Unit	Test Method
RTI Str (0.0620 in)	140	°F	UL 746
RTI Imp (0.0620 in)	140	°F	UL 746
RTI Elec (0.0620 in)	140	°F	UL 746

Optical	Nominal Value	Unit	Test Method
Gardner Gloss (60°)	90		ASTM D523

Additional Properties
Melt Flow Rate, ASTM D1238, 230°C/10 kg Load: 7.7 g/10 min

ISO 10350 Properties ³

Rheological properties	Nominal Value	Unit	Test Method
Melt volume-flow rate (220°C/10.0 kg)	0.317	in ³ /10min	ISO 1133

Mechanical properties 23°C/50%r.h.	Nominal Value	Unit	Test Method
Tensile modulus	277000	psi	ISO 527-1, -2
Yield stress	5370	psi	ISO 527-1, -2
Yield strain	3.4	%	ISO 527-1, -2
Nominal strain at break	29.0	%	ISO 527-1, -2
Charpy notched impact strength (+23°C)	19.5	ft-lb/in ²	ISO 179 /1eA
Charpy notched impact strength (-30°C)	14.3	ft-lb/in ²	ISO 179 /1eA

Thermal properties	Nominal Value	Unit	Test Method
Temp. of deflection under load (1.80 MPa)	174	°F	ISO 75-1, -2
Temp. of deflection under load (0.45 MPa)	198	°F	ISO 75-1, -2
Coeff.of linear therm. expansion (parallel)	0.000052	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)	0.012		IEC 60250
Dissipation factor (1 MHz)	0.012		IEC 60250

Other properties	Nominal Value	Unit	Test Method
Density	0.0379	lb/in ³	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	7980	psi	ISO 294

Notes

¹ Typical properties: these are not to be construed as specifications.

² 8025 in/min

³ 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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