XENOY® *XL1339U*

Europe-Africa-Middle East: COMMERCIAL

XENOY XL1339U is an unreinforced amorphous PC+PET blend, offering excellent impact performance over a wide temperature range. It combines very good flow characteristics with high heat resistance. XL1339U has excellent dimension stability, good adhesion to PU based glues and paints, and good UV resistance. XL1339U was developed for automotive applications like A-pillars, painted and unpainted door handles, front grills, etc. This grade is a XL1339 with improved UV performance.

Features

Heat Stabilized | High Impact | Light stabilized

TYPICAL PROPERTIES [1]	TYPICAL VALUE	UNIT	STANDARD
MECHANICAL			
Taber Abrasion, CS-17, 1 kg	20	mg/1000cy	GE Method
Tensile Stress, yield, 50 mm/min	55	MPa	ISO 527
Tensile Stress, break, 50 mm/min	40	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	5	%	ISO 527
Tensile Strain, break, 50 mm/min	70	%	ISO 527
Tensile Modulus, 1 mm/min	2300	MPa	ISO 527
Flexural Strength, yield, 2 mm/min	80	MPa	ISO 178
Flexural Modulus, 2 mm/min	2200	MPa	ISO 178
Hardness, H358/30	95	MPa	ISO 2039-1
IMPACT			
Izod Impact, unnotched 80*10*4 +23°C	NB	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	NB	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	40	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -10°C	38	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -20°C	35	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	25	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -40°C	15	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	45	kJ/m²	ISO 179/1eA
Charpy Impact, notched, 23°C	50	kJ/m²	ISO 179/2C

1) Typical values only. Variations within normal tolerances are possible for variose colours.All values are measured at least after 48 hours storage at 23°C/50% relative humidity.
All properties, expect the melt volume rate are measured on injection moulded samples.
All samples are prepared according to ISO 294.

2) Only typical data for material selection purpose.Not to be used for part or tool design.
3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
4) Own measurement according to UL.

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TYPICAL PROPERTIES [1]	TYPICAL VALUE	UNIT	STANDARD
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	35	kJ/m²	ISO 179/1eA
Charpy Impact, notched, -20°C	10	kJ/m²	ISO 179/2C
Charpy Impact, notched, -30°C	7	kJ/m²	ISO 179/2C
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	NB	kJ/m²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	NB	kJ/m²	ISO 179/1eU
THERMAL			
Thermal Conductivity	0.18	W/m-°C	ISO 8302
CTE, 23°C to 80°C, flow	7.5E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	8.E-05	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat A/50	140	°C	ISO 306
Vicat B/50	130	°C	ISO 306
Vicat B/120	135	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	125	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	105	°C	ISO 75/Ae
PHYSICAL			
Mold Shrinkage on Tensile Bar, flow (2)	0.5 - 0.8	%	ASTM D 955
Mold Shrinkage on Tensile Bar, xflow (2)	0.5 - 0.8	%	ASTM D 955
Density	1.22	g/cm³	ISO 1183
Water Absorption, (23°C/sat) 1L	0.7	%	ISO 62
Moisture Absorption (23°C / 50% RH) 1L	0.2	%	ISO 62
Melt Volume Rate, MVR at 265°C/1.2 kg	4	cm³/10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	>1.E+14	Ohm-cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ohm	IEC 60093
Dielectric Strength, in oil, 3.2 mm	17	kV/mm	IEC 60243-1
Relative Permittivity, 50/60 Hz	3.3	-	IEC 60250
Relative Permittivity, 1 MHz	3.1	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.002	-	IEC 60250
Dissipation Factor, 1 MHz	0.02	-	IEC 60250
Comparative Tracking Index	600	V	IEC 60112
FLAME CHARACTERISTICS			
UL Compliant, 94HB Flame Class Rating (3)(4)	1.5	mm	UL 94 by GE
Glow Wire Flammability Index 750°C, passes at	2.7	mm	IEC 60695-2-12

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PROCESSING PARAMETERS	TYPICAL VALUE	UNIT
Injection Molding		
Drying Temperature	110 - 120	°C
Drying Time	4 - 6	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	265 - 275	°C
Nozzle Temperature	260 - 275	°C
Front - Zone 3 Temperature	260 - 280	°C
Middle - Zone 2 Temperature	250 - 275	°C
Rear - Zone 1 Temperature	240 - 270	°C
Hopper Temperature	60 - 80	°C
Mold Temperature	60 - 100	°C

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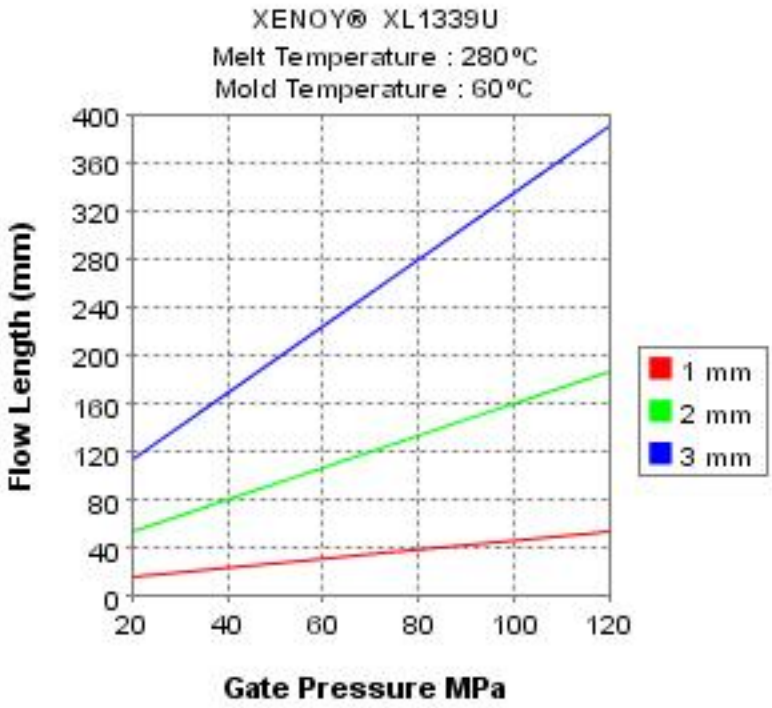
CALCULATED FLOW LENGTH INDICATION

Moldflow® Radial Flow Analysis



Note: Technical support is recommended if Gate Pressure is greater than 80 MPa. Contact your local representative.

® Moldflow is a registered trademark of the Moldflow Corporation.

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