

Product Texts

NORYL™ LS6010 resin is a non-reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This high performance, injection moldable and extrudable grade contains non-brominated, non-chlorinated flame retardant and carries a UL94 flame rating of V0 at 1.5mm. NORYL LS6010 resin features low smoke production upon burning, high heat resistance, very low specific gravity, enhanced resistance to melting and dripping and meets the requirements of FAR 25.853. In addition, this material is heat stabilized and impact modified. It is an excellent candidate for aerospace interior applications such as rub strips, seat track covers, cable guides, switch panels, conduit, wall/ceiling mounted electronics, and parts machined from slab stock.

UL Yellow Card Link [F121562-644041](https://www.ul.com/yellow-card/F121562-644041)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	5	cm ³ /10min	ISO 1133
Temperature	280	°C	-
Load	5	kg	-
ASTM Data			
Melt Flow Index, MFI	5.6	g/10min	ASTM D 1238
Temperature	280	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2440	MPa	ISO 527
Yield stress	64	MPa	ISO 527
Yield strain	4.7	%	ISO 527
Stress at break	58	MPa	ISO 527
Strain at break	8.3	%	ISO 527
Flexural modulus	2360	MPa	ISO 178
Charpy notched impact strength, +23°C	20	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C, 4mm	18	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	14	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	2220	MPa	ASTM D 638
Tensile Strength at Yield	64	MPa	ASTM D 638
Tensile Strength at Break	53	MPa	ASTM D 638
Elongation at Yield	4.6	%	ASTM D 638
Elongation at Break	20	%	ASTM D 638
Flexural Modulus	2390	MPa	ASTM D 790
Izod Impact notched, 1/8 in	300	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	181	J/m	ASTM D 256
Temperature	-30	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	124	°C	ISO 75-1/-2
Vicat softening temperature, B	143	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	146	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
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Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (GWIT)	775	°C	IEC 60695-2-13
GWIT - thickness tested (1)	1	mm	-
Glow Wire Ignition Temperature (GWIT)	775	°C	IEC 60695-2-13
GWIT - thickness tested (2)	2	mm	-
Glow Wire Ignition Temperature (GWIT)	800	°C	IEC 60695-2-13
GWIT - thickness tested (3)	3	mm	-
ASTM Data			
DTUL @ 264 psi	122	°C	ASTM D 648

NORYL™ Resin LS6010 - Americas

(PPE+PS)

Saudi Basic Industries Corporation (SABIC)

Vicat Temperature	143	°C	ASTM D 1525
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Other properties	Value	Unit	Test Standard
Water absorption	0.2	%	Sim. to ISO 62
Humidity absorption	0.05	%	Sim. to ISO 62
Density	1110	kg/m ³	ISO 1183
Density	1110	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	95 - 105	°C	-
Pre-drying - Time	2 - 4	h	-
Melt temperature	280 - 305	°C	-
Mold temperature	65 - 100	°C	-
Zone 1	280 - 295	°C	-
Zone 2	290 - 300	°C	-
Zone 3	295 - 305	°C	-
Screw speed	40 - 80	rpm	-

Characteristics**Processing**

Injection Molding, Profile Extrusion, Sheet Extrusion

Applications

Automotive

Additives

Flame retarding agent

Regional Availability

North America

Special Characteristics

Flame retardant, High impact or impact modified