NORYL™ Resin LTA6020 - Americas

(PPE+PS) Saudi Basic Industries Corporation (SABIC)

Product Texts

NORYL™ LTA6020 resin is a non-reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This injection moldable grade contains non-brominated, non-chlorinated flame retardant and carries a UL94 flame rating of 5VA at 2.5mm, 5VB at 2mm, and V0 at 1.5mm. NORYL LTA6020 exhibits good dimensional stability over a wide temperature range, high heat performance, low moisture uptake, and offers long-term aging / retention of mechanical properties. It is an excellent candidate for solar / photovoltaic (PV) junction boxes and outdoor electrical enclosures.

UL Yellow Card Link E45329-100960629

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**20**	cm³/10min	ISO 1133
Temperature	**300**	°C	-
Load	**5**	kg	-
ASTM Data			
Melt Flow Index, MFI	**4**	g/10min	ASTM D 1238
Temperature	**250**	°C	-
Load	**10**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2680**	MPa	ISO 527
Yield stress	**71**	MPa	ISO 527
Yield strain	**4**	%	ISO 527
Stress at break	**57**	MPa	ISO 527
Strain at break	**8**	%	ISO 527
Flexural modulus	**2600**	MPa	ISO 178
Izod notched impact strength, +23°C, 4mm	**16**	kJ/m²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	**8**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Strength at Yield	**72**	MPa	ASTM D 638
Elongation at Yield	**6**	%	ASTM D 638
Izod Impact notched, 1/8 in	**220**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**123**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**136**	°C	ISO 75-1/-2
Vicat softening temperature, 120°C/h 10N	**155**	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	**144**	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	**V-0**	class	IEC 60695-11-10
Thickness tested	**1.5**	mm	-
Burning behav. at thickness h	**V-1**	class	IEC 60695-11-10
Thickness tested	**1.0**	mm	-
Burning behav. 5V at thickness h	**5VB**	class	IEC 60695-11-20
Thickness tested	**2.0**	mm	-
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
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GWFI - thickness tested (3)	**1**	mm	-
Glow Wire Ignition Temperature (GWIT)	**825**	°C	IEC 60695-2-13
GWIT - thickness tested (1)	**1**	mm	-
Glow Wire Ignition Temperature (GWIT)	**825**	°C	IEC 60695-2-13
GWIT - thickness tested (2)	**2**	mm	-
Glow Wire Ignition Temperature (GWIT)	**825**	°C	IEC 60695-2-13
GWIT - thickness tested (3)	**3**	mm	-

Other properties	Value	Unit	Test Standard
Density	**1130**	kg/m³	ISO 1183

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Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**105**	°C	-
Pre-drying - Time	**3 - 4**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**280 - 300**	°C	-
Mold temperature	**80 - 100**	°C	-
Feed temperature	**60 - 80**	°C	-
Zone 1	**260 - 280**	°C	-
Zone 2	**280 - 300**	°C	-
Zone 3	**270 - 290**	°C	-

Characteristics

Processing
Injection Molding

Special Characteristics
Flame retardant

Additives
Flame retarding agent

Regional Availability
North America