NORYL™ Resin V0150B - Americas

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

Product Texts

NORYL™ V0150B resin is a non-reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This injection moldable contains non-brominated, non-chlorinated flame retardant and carries a UL94 flame rating of V0 at 1.5mm along with a UL746C Outdoor Suitability rating of F1. exhibits good low temperature impact resistance, damp heat performance, low moisture absorption and good dimensional stability. NORYL V0150B resin is an excellent candidate for parts that are exposed to tough outdoor environments, such as Solar / Photovoltaic (PV) junction boxes and outdoor housings and enclosures.

UL Yellow Card Link E121562-100883044

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**10**	cm³/10min	ISO 1133
Temperature	**300**	°C	-
Load	**5**	kg	-
ASTM Data			
Melt Flow Index, MFI	**3.5**	g/10min	ASTM D 1238
Temperature	**280**	°C	-
Load	**5**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2500**	MPa	ISO 527
Yield stress	**70**	MPa	ISO 527
Yield strain	**4**	%	ISO 527
Stress at break	**55**	MPa	ISO 527
Strain at break	**10**	%	ISO 527
Flexural modulus	**2400**	MPa	ISO 178
Charpy notched impact strength, +23°C	**14**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**5**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C, 4mm	**13**	kJ/m²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	**5**	kJ/m²	ISO 180/1A
Ball indentation hardness	**113**	MPa	ISO 2039-1
ASTM Data			
Tensile Modulus	**2500**	MPa	ASTM D 638
Tensile Strength at Yield	**70**	MPa	ASTM D 638
Tensile Strength at Break	**60**	MPa	ASTM D 638
Elongation at Yield	**5**	%	ASTM D 638
Elongation at Break	**7**	%	ASTM D 638
Flexural Modulus	**2550**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**330**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**180**	J/m	ASTM D 256
Temperature	**-30**	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Vicat softening temperature, A	**160**	°C	ISO 306
Vicat softening temperature, B	**145**	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	**155**	°C	ISO 306
Burning behav. at thickness h	**V-1**	class	IEC 60695-11-10
Thickness tested	**0.8**	mm	-
Burning behav. 5V at thickness h	**5VA**	class	IEC 60695-11-20
Thickness tested	**2.0**	mm	-
Thermal Conductivity	**0.27**	W/(m K)	DIN 52616
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
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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)	**775**	°C	IEC 60695-2-13
GWIT - thickness tested (3)	**3**	mm	-
ASTM Data			
DTUL @ 264 psi	**135**	°C	ASTM D 648
Vicat Temperature	**155**	°C	ASTM D 1525

Electrical properties	**Value**	**Unit**	**Test Standard**
ISO Data			
Relative permittivity, 1MHz	**2.7**	-	IEC 62631-2-1
Dissipation factor, 1MHz	**30**	E-4	IEC 62631-2-1
Volume resistivity	**1E13**	Ohm*m	IEC 62631-3-1
Surface resistivity	**>1E15**	Ohm	IEC 62631-3-2
Electric strength	**33**	kV/mm	IEC 60243-1
Comparative tracking index	**250**	-	IEC 60112

Other properties	**Value**	**Unit**	**Test Standard**
Water absorption	**0.18**	%	Sim. to ISO 62
Humidity absorption	**0.06**	%	Sim. to ISO 62
Density	**1110**	kg/m³	ISO 1183
Density	**1110**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	**Value**	**Unit**	**Test Standard**
Pre-drying - Temperature	**110 - 120**	°C	-
Pre-drying - Time	**2 - 3**	h	-
Melt temperature	**300 - 320**	°C	-
Mold temperature	**100 - 130**	°C	-
Feed temperature	**80 - 100**	°C	-
Zone 1	**260 - 280**	°C	-
Zone 2	**280 - 300**	°C	-
Zone 3	**300 - 320**	°C	-

Characteristics

Processing
Injection Molding

Special Characteristics
Flame retardant

Additives
Flame retarding agent

Regional Availability
North America