

Product Texts

LNP ELCRIN WF0061BiQ is a 30% glass fiber reinforced, non-brominated, non-chlorinated flame retardant Polybutylene Terephthalate compound, utilizing iQ PBT chemical recycling process of Ocean Bound PET water bottles with minimum 28% post consumer recycled content. Added features of this material include: good flow and UL V-0 rating at 0.8 mm thickness.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	17	cm ³ /10min	ISO 1133
Temperature	250	°C	-
Load	5	kg	-
ASTM Data			
Melt Flow Index, MFI	24	g/10min	ASTM D 1238
Temperature	250	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	10700	MPa	ISO 527
Stress at break	102	MPa	ISO 527
Strain at break	2	%	ISO 527
Flexural modulus, 23°C	10600	MPa	ISO 178
Izod impact strength, +23°C	39	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C	8.5	kJ/m ²	ISO 180/1A
Izod notched impact strength	8	kJ/m ²	ISO 180/1A
Temperature	-30	°C	-
ASTM Data			
Tensile Modulus	10800	MPa	ASTM D 638
Tensile Strength at Break	104	MPa	ASTM D 638
Elongation at Break	2	%	ASTM D 638
Flexural Modulus	10300	MPa	ASTM D 790
Izod Impact notched, 1/8 in	64	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	59	J/m	ASTM D 256
Temperature	-30	°C	-
Izod Impact unnotched, 1/8 in	540	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	202	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	217	°C	ISO 75-1/-2
Burning behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.8	mm	-
Yellow Card available	yes	-	-
Burning behav. 5V at thickness h	5VB	class	IEC 60695-11-20
Thickness tested	3.0	mm	-
Yellow Card available	yes	-	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (1)	0.8	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (2)	1.5	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (3)	3	mm	-
Glow Wire Ignition Temperature (GWIT)	750	°C	IEC 60695-2-13
GWIT - thickness tested (1)	0.8	mm	-
Glow Wire Ignition Temperature (GWIT)	775	°C	IEC 60695-2-13
GWIT - thickness tested (2)	1.5	mm	-
Glow Wire Ignition Temperature (GWIT)	800	°C	IEC 60695-2-13
GWIT - thickness tested (3)	3	mm	-
ASTM Data			
Coefficient of Thermal Expansion, MD	22	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	85	E-6/K	ASTM D 696

DTUL @ 66 psi	217	°C	ASTM D 648
DTUL @ 264 psi	204	°C	ASTM D 648
Vicat Temperature	200	°C	ASTM D 1525

Electrical properties	Value	Unit	Test Standard
ISO Data			
Comparative tracking index	600	-	IEC 60112

Other properties	Value	Unit	Test Standard
Humidity absorption	0.03	%	Sim. to ISO 62
Density	1540	kg/m ³	ISO 1183
Density	1570	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	110 - 120	°C	-
Pre-drying - Time	2 - 4	h	-
Processing humidity	≤0.02	%	-
Melt temperature	245 - 260	°C	-
Mold temperature	40 - 100	°C	-
Feed temperature	40 - 60	°C	-
Zone 1	230 - 240	°C	-
Zone 2	235 - 250	°C	-
Zone 3	240 - 260	°C	-
Nozzle temperature	230 - 255	°C	-

Characteristics

Processing

Injection Molding

Special Characteristics

Flame retardant, Halogen-free, Heat stabilized or stable to heat

Chemical Resistance

General Chemical Resistance

Certifications

Recycled Resin Content

Applications

Electrical and Electronical

Regional Availability

North America, Europe, Asia Pacific, South and Central America