

Product Texts

LNP ELCRIN W1000LiQ, utilizing ELCRIN iQ upcycling technology, is a general purpose, unreinforced iQ PBT resin. Added features included PCR content and improved processing. This grade contains minimum 56% PCR weight content and is based on food contact compliant ingredients. Applications include Food handling, cosmetic packaging, razor blades, toothbrushes, etc.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	21	cm ³ /10min	ISO 1133
Temperature	250	°C	-
Load	2.16	kg	-
ASTM Data			
Melt Flow Index, MFI	23	g/10min	ASTM D 1238
Temperature	250	°C	-
Load	2.16	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2550	MPa	ISO 527
Yield stress	55	MPa	ISO 527
Yield strain	3	%	ISO 527
Stress at break	50	MPa	ISO 527
Strain at break	50	%	ISO 527
Flexural modulus	2430	MPa	ISO 178
Charpy notched impact strength, +23°C	5	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C, 4mm	4	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	2	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	2550	MPa	ASTM D 638
Tensile Strength at Yield	56	MPa	ASTM D 638
Tensile Strength at Break	29	MPa	ASTM D 638
Elongation at Yield	3.2	%	ASTM D 638
Elongation at Break	140	%	ASTM D 638
Flexural Modulus	2560	MPa	ASTM D 790
Izod Impact notched, 1/8 in	50	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	46	J/m	ASTM D 256
Temperature	-30	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 0.45 MPa	133	°C	ISO 75-1/-2
Vicat softening temperature, 120°C/h 50N	168	°C	ISO 306
ASTM Data			
DTUL @ 264 psi	48	°C	ASTM D 648

Other properties	Value	Unit	Test Standard
Water absorption	0.16	%	Sim. to ISO 62
Humidity absorption	0.07	%	Sim. to ISO 62
Density	1310	kg/m ³	ISO 1183
Density	1310	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	120	°C	-
Pre-drying - Time	3 - 4	h	-
Processing humidity	≤0.02	%	-
Melt temperature	245 - 260	°C	-
Mold temperature	50 - 75	°C	-
Zone 1	230 - 250	°C	-
Zone 2	240 - 255	°C	-
Zone 3	245 - 260	°C	-

LNP™ ELCRIN™ W1000LiQ

PBT

Saudi Basic Industries Corporation (SABIC)

Screw speed	50 - 70	rpm	-
Back pressure	0.3 - 0.7	MPa	-

Characteristics**Processing**

Injection Molding

Regional Availability

North America, Europe, Asia Pacific

Certifications

Recycled Resin Content, Food contact