LNP™ ELCRIN™ EXL4412B

PC-GF20 Saudi Basic Industries Corporation (SABIC)

Product Texts

ELCRIN EXL4412B resin is a 20% glass fiber reinforced Polycarbonate Copolymer, medium flow, impact modified, injection moldable grade with partial component synthesized from Bio source. ELCRIN EXL4412B is available in opaque colors only and is an excellent candidate for a broad range of applications that require a combination of stiffness, ductility and good chemical resistance.

UL Yellow Card E207780-103834023

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**10**	cm³/10min	ISO 1133
Temperature	**300**	°C	-
Load	**1.2**	kg	-
ASTM Data			
Melt Flow Index, MFI	**11**	g/10min	ASTM D 1238
Temperature	**300**	°C	-
Load	**1.2**	kg	-
Mold Shrinkage, MD	**0.0025**	mm/mm	ASTM D 955
Mold Shrinkage, TD	**0.0045**	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**6500**	MPa	ISO 527
Stress at break	**110**	MPa	ISO 527
Strain at break	**3**	%	ISO 527
Flexural modulus, 23°C	**5700**	MPa	ISO 178
Flexural strength	**165**	MPa	ISO 178
Charpy notched impact strength, +23°C	**17**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**12**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C	**17**	kJ/m²	ISO 180/1A
Izod notched impact strength	**12**	kJ/m²	ISO 180/1A
Temperature	**-30**	°C	-
ASTM Data			
Tensile Modulus	**6300**	MPa	ASTM D 638
Tensile Strength at Break	**100**	MPa	ASTM D 638
Elongation at Break	**3**	%	ASTM D 638
Flexural Modulus	**5800**	MPa	ASTM D 790
Flexural Strength	**160**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**140**	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	**700**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**133**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**137**	°C	ISO 75-1/-2
Vicat softening temperature, B	**142**	°C	ISO 306
Burning behav. at thickness h	**HB**	class	IEC 60695-11-10
Thickness tested	**0.4**	mm	-
Yellow Card available	**yes**	-	-
ASTM Data			
UL 94 Flame rating	**V-1**	-	UL 94
Thickness tested	**2**	mm	-
Coefficient of Thermal Expansion, MD	**26**	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	**68**	E-6/K	ASTM D 696
DTUL @ 66 psi	**135**	°C	ASTM D 648
DTUL @ 264 psi	**132**	°C	ASTM D 648

Other properties	Value	Unit	Test Standard
Water absorption	**0.1**	%	Sim. to ISO 62
Humidity absorption	**0.03**	%	Sim. to ISO 62
Density	**1330**	kg/m³	ISO 1183
Density	**1330**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**110**	°C	-
Pre-drying - Time	**3 - 6**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**285 - 310**	°C	-
Mold temperature	**80 - 110**	°C	-
Zone 1	**260 - 280**	°C	-
Zone 2	**270 - 290**	°C	-
Zone 3	**280 - 300**	°C	-
Nozzle temperature	**285 - 305**	°C	-
Screw speed	**50 - 90**	rpm	-
Back pressure	**0.1 - 0.3**	MPa	-

Characteristics

Processing
Injection Molding

Special Characteristics
Flame retardant, Halogen-free, High impact or impact modified, Opaque

Features
Ductile, Copolymer

Chemical Resistance
General Chemical Resistance

Certifications
Contains renewable resources

Applications
IT / Business Machine, Electrical and Electronical

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