LNP™ ELCRES™ EXL4311

PC — Saudi Basic Industries Corporation (SABIC)

Product Texts

ELCRES EXL4311 is based on Polycarbonate (PC) copolymer resin containing 10% glass fiber, medium flow, impact modified, injection moldable grade. EXL4311 has good surface energy and high gloss and is good candidate for a broad range of applications that require a combination of stiffness and ductility.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**11**	cm³/10min	ISO 1133
Temperature	**300**	°C	-
Load	**1.2**	kg	-
ASTM Data			
Melt Flow Index, MFI	**13**	g/10min	ASTM D 1238
Temperature	**300**	°C	-
Load	**1.2**	kg	-
Mold Shrinkage, MD	**0.006**	mm/mm	ASTM D 955
Mold Shrinkage, TD	**0.006**	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**3920**	MPa	ISO 527
Stress at break	**66**	MPa	ISO 527
Strain at break	**4**	%	ISO 527
Flexural modulus, 23°C	**3500**	MPa	ISO 178
Flexural strength	**116**	MPa	ISO 178
ASTM Data			
Tensile Modulus	**3930**	MPa	ASTM D 638
Tensile Strength at Break	**66**	MPa	ASTM D 638
Elongation at Break	**3.6**	%	ASTM D 638
Flexural Modulus	**3520**	MPa	ASTM D 790
Flexural Strength	**116**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**162**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**105**	J/m	ASTM D 256
Temperature	**-20**	°C	-
Izod Impact unnotched, 1/8 in	**760**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**138**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**143**	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	**40**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**90**	E-6/K	ISO 11359-1/-2
ASTM Data			
Coefficient of Thermal Expansion, MD	**40**	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	**90**	E-6/K	ASTM D 696
DTUL @ 66 psi	**143**	°C	ASTM D 648
DTUL @ 264 psi	**137**	°C	ASTM D 648

Other properties	Value	Unit	Test Standard
Density	**1200**	kg/m³	ISO 1183
Density	**1200**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**110 - 120**	°C	-
Pre-drying - Time	**3 - 6**	h	-
Melt temperature	**285 - 310**	°C	-
Mold temperature	**110 - 140**	°C	-
Zone 1	**260 - 280**	°C	-
Zone 2	**270 - 290**	°C	-
Zone 3	**280 - 300**	°C	-

Nozzle temperature	**285 - 305**	°C	-

Characteristics

Processing
Injection Molding

Special Characteristics
High impact or impact modified

Features
Ductile, High Gloss, Copolymer

Applications
IT / Business Machine, Electrical and Electronical

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