LEXAN™ VISUALFX™ Resin FXD921A

PC — Saudi Basic Industries Corporation (SABIC)

Product Texts

LEXAN FXD921A compound is based on Polycarbonate (PC) resin for light diffusion special effects. Color package may affect performance. Added features of this grade include: . Transparent/translucent, Brominated Flame Retardant.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**12**	cm³/10min	ISO 1133
Temperature	**300**	°C	-
Load	**1.2**	kg	-
ASTM Data			
Melt Flow Index, MFI	**14.8**	g/10min	ASTM D 1238
Temperature	**300**	°C	-
Load	**1.2**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2350**	MPa	ISO 527
Yield stress	**63**	MPa	ISO 527
Yield strain	**6**	%	ISO 527
Stress at break	**60**	MPa	ISO 527
Strain at break	**85**	%	ISO 527
Flexural modulus, 23°C	**2300**	MPa	ISO 178
Charpy impact strength, +23°C	**N**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	**N**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**73**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**14**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**N**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C	**70**	kJ/m²	ISO 180/1A
Izod notched impact strength	**12**	kJ/m²	ISO 180/1A
Temperature	**-30**	°C	-
Ball indentation hardness	**95**	MPa	ISO 2039-1
ASTM Data			
Tensile Modulus	**2400**	MPa	ASTM D 638
Tensile Strength at Yield	**62**	MPa	ASTM D 638
Tensile Strength at Break	**66**	MPa	ASTM D 638
Elongation at Yield	**6**	%	ASTM D 638
Elongation at Break	**125**	%	ASTM D 638
Flexural Modulus	**2280**	MPa	ASTM D 790
Flexural Strength	**94**	MPa	ASTM D 790
Izod Impact notched, 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	**124**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**135**	°C	ISO 75-1/-2
Burning behav. at 1.5 mm nom. thickn.	**V-2**	class	IEC 60695-11-10
Thickness tested	**1.5**	mm	-
Yellow Card available	**yes**	-	-
Burning behav. at thickness h	**V-0**	class	IEC 60695-11-10
Thickness tested	**3.0**	mm	-
Yellow Card available	**yes**	-	-
ASTM Data			
Coefficient of Thermal Expansion, MD	**75**	E-6/K	ASTM D 696
DTUL @ 264 psi	**123**	°C	ASTM D 648
Vicat Temperature	**141**	°C	ASTM D 1525

Electrical properties	Value	Unit	Test Standard
ISO Data			
Comparative tracking index	**325**	-	IEC 60112

ASTM Data			
Dielectric Constant, 60 Hz	**3**	-	ASTM D 150
Surface Resistivity	**1E16**	Ohm	ASTM D 257
Arc Resistance	**30**	s	ASTM D 495

Other properties	Value	Unit	Test Standard
Water absorption	**0.35**	%	Sim. to ISO 62
Humidity absorption	**0.15**	%	Sim. to ISO 62
Density	**1200**	kg/m³	ISO 1183
Density	**1200**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**120**	°C	-
Pre-drying - Time	**2 - 4**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**280 - 300**	°C	-
Mold temperature	**80 - 100**	°C	-
Feed temperature	**60 - 80**	°C	-
Zone 1	**260 - 280**	°C	-
Zone 2	**270 - 290**	°C	-
Zone 3	**280 - 300**	°C	-
Nozzle temperature	**270 - 290**	°C	-
Screw speed	**40 - 70**	rpm	-
Back pressure	**0.3 - 0.7**	MPa	-

Characteristics

Processing
Injection Molding

Applications
Electrical and Electronical

Special Characteristics
Flame retardant, Transparent, Translucent

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

Features
Light Diffusing