LEXAN™ Copolymer DMX1435 - Asia

PC — Saudi Basic Industries Corporation (SABIC)

Product Texts

LEXAN™ DMX1435 is a UV stabilized standard flow polycarbonate copolymer resin with improved scratch resistance, improved dielectric performance (lower Df). It is both transparency and colorable available solutions to the applications such as 5G related devices, anti-scratch covers, etc.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**13**	cm³/10min	ISO 1133
Temperature	**300**	°C	-
Load	**1.2**	kg	-
ASTM Data			
Melt Flow Index, MFI	**14.5**	g/10min	ASTM D 1238
Temperature	**300**	°C	-
Load	**1.2**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2450**	MPa	ISO 527
Yield stress	**80**	MPa	ISO 527
Yield strain	**7**	%	ISO 527
Stress at break	**60**	MPa	ISO 527
Strain at break	**40**	%	ISO 527
Flexural modulus	**2450**	MPa	ISO 178
Charpy impact strength, +23°C, 3mm	**N**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C, 3mm	**47**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C, 3mm	**3**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C, 3mm	**3**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**N**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C, 3mm	**5**	kJ/m²	ISO 180/1A
Izod notched impact strength, -30°C, 3mm	**4**	kJ/m²	ISO 180/1A
Ball indentation hardness	**128**	MPa	ISO 2039-1
ASTM Data			
Tensile Modulus	**2563**	MPa	ASTM D 638
Tensile Strength at Yield	**80**	MPa	ASTM D 638
Tensile Strength at Break	**65**	MPa	ASTM D 638
Elongation at Yield	**7**	%	ASTM D 638
Elongation at Break	**70**	%	ASTM D 638
Flexural Modulus	**2469**	MPa	ASTM D 790
Rockwell Hardness	**M 93**	-	ASTM D 785
Taber Abrasion Resistance	**10**	mg/1000 cycles	ASTM D 1044
Izod Impact notched, 1/8 in	**30**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**30**	J/m	ASTM D 256
Temperature	**-30**	°C	-
Izod Impact unnotched, 1/8 in	**N**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**118**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**131**	°C	ISO 75-1/-2
Vicat softening temperature, B	**138**	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	**140**	°C	ISO 306
Burning behav. at thickness h	**HB**	class	IEC 60695-11-10
Thickness tested	**0.6**	mm	-
Thermal Conductivity	**0.2**	W/(m K)	DIN 52616
Glow Wire Flammability Index (GWFI)	**900**	°C	IEC 60695-2-12
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (GWIT)	**850**	°C	IEC 60695-2-13
GWIT - thickness tested (1)	**1**	mm	-
Glow Wire Ignition Temperature (GWIT)	**825**	°C	IEC 60695-2-13

GWIT - thickness tested (2)	**2**	mm	-
Glow Wire Ignition Temperature (GWIT)	**825**	°C	IEC 60695-2-13
GWIT - thickness tested (3)	**3**	mm	-
ASTM Data			
DTUL @ 66 psi	**133**	°C	ASTM D 648
DTUL @ 264 psi	**119**	°C	ASTM D 648
Vicat Temperature	**139**	°C	ASTM D 1525
Thermal Conductivity, solid state	**0.0288**	W/(m K)	ASTM C 177
Specific Heat	**1400**	J/(kg K)	ASTM C 351

Other properties	Value	Unit	Test Standard
Water absorption	**0.27**	%	Sim. to ISO 62
Humidity absorption	**0.13**	%	Sim. to ISO 62
Density	**1170**	kg/m³	ISO 1183
Water Absorption, 24hr	**0.04**	%	ASTM D 570
Density	**1200**	kg/m³	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	**295 - 315**	°C	-
Mold temperature	**70 - 95**	°C	-
Feed temperature	**60 - 80**	°C	-
Zone 1	**260 - 280**	°C	-
Zone 2	**280 - 305**	°C	-
Zone 3	**295 - 315**	°C	-

Characteristics

Processing
Injection Molding

Regional Availability
Asia Pacific

Applications
Automotive