

LEXAN* DMX9254 Resin

General Information

Product Description

Lexan* DMX9254 resin is an injection moldable PC copolymer/ABS blend. This resin combines excellent scratch resistance with high flow and ductility. It contains non-brominated and non-chlorinated flame retardant systems to meet UL-94 V0 at 1.5mm and V1 at 1.0mm.

General

Material Status	• Commercial: Active		
Availability	• North America		
Additive	• Flame Retardant		
Features	• Bromine Free • Chlorine Free	• Ductile • Flame Retardant	• High Flow • Scratch Resistant
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.19	g/cm ³	ASTM D792
Density	1.19	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)			ASTM D1238
260°C/2.16 kg	15	g/10 min	
300°C/1.2 kg	29	g/10 min	
Melt Volume-Flow Rate (MVR)			ISO 1133
260°C/2.16 kg	12.5	cm ³ /10min	
300°C/1.2 kg	25.0	cm ³ /10min	
Molding Shrinkage - Flow (3.20 mm)	0.50 to 0.70	%	Internal Method
Water Absorption (Saturation, 23°C)	0.10	%	ISO 62
Water Absorption (Equilibrium, 23°C, 50% RH)	0.10	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	3150	MPa	ASTM D638
Tensile Modulus	2850	MPa	ISO 527-2/1
Tensile Strength ³ (Yield)	72.0	MPa	ASTM D638
Tensile Strength ³ (Break)	55.0	MPa	ASTM D638
Tensile Stress (Break)	53.0	MPa	ISO 527-2/50
Tensile Elongation ³ (Yield)	4.8	%	ASTM D638
Tensile Strain (Yield)	4.7	%	ISO 527-2/50
Tensile Elongation ³ (Break)	65	%	ASTM D638
Tensile Strain (Break)	75	%	ISO 527-2/50
Flexural Modulus ⁴ (50.0 mm Span)	2750	MPa	ASTM D790
Flexural Modulus ⁵	2700	MPa	ISO 178
Flexural Strength ^{5, 6}	105	MPa	ISO 178

LEXAN* DMX9254 Resin

SABIC Innovative Plastics - Acrylonitrile Butadiene Styrene + PC

Mechanical	Nominal Value	Unit	Test Method
Flexural Strength ⁴ (Yield, 50.0 mm Span)	109	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁷			ISO 179/1eA
-30°C	5.0	kJ/m ²	
23°C	7.0	kJ/m ²	
Charpy Unnotched Impact Strength ⁷			ISO 179/1eU
-30°C	59	kJ/m ²	
23°C	No Break		
Notched Izod Impact			ASTM D256
-30°C	25	J/m	
23°C	42	J/m	
Notched Izod Impact Strength ⁸			ISO 180/1A
-30°C	5.0	kJ/m ²	
23°C	6.0	kJ/m ²	
Unnotched Izod Impact Strength ⁸			ISO 180/1U
-30°C	53	kJ/m ²	
23°C	No Break		
Instrumented Dart Impact (23°C, Total Energy)	56.0	J	ASTM D3763
Hardness	Nominal Value	Unit	Test Method
Pencil Hardness (1 kgf)	F		ASTM D3363
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 3.20 mm	98.0	°C	
Heat Deflection Temperature ⁹			ISO 75-2/Bf
0.45 MPa, Unannealed, 64.0 mm Span	98.0	°C	
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed, 3.20 mm	87.0	°C	
Heat Deflection Temperature ⁹			ISO 75-2/Af
1.8 MPa, Unannealed, 64.0 mm Span	88.0	°C	
Vicat Softening Temperature	105	°C	ASTM D1525 ¹⁰
Vicat Softening Temperature			
--	104	°C	ISO 306/B50
--	107	°C	ISO 306/B120
CLTE - Flow (-40 to 40°C)	0.000060	cm/cm/°C	ASTM E831
CLTE - Flow (-40 to 40°C)	0.000060	cm/cm/°C	ISO 11359-2
CLTE - Transverse (-40 to 40°C)	0.000060	cm/cm/°C	ASTM E831
CLTE - Transverse (-40 to 40°C)	0.000060	cm/cm/°C	ISO 11359-2
Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL			UL 94
1.00 mm	V-1		
1.50 mm	V-0		

LEXAN* DMX9254 Resin

SABIC Innovative Plastics - Acrylonitrile Butadiene Styrene + PC

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	82.2 to 87.8	°C
Drying Time	3.0 to 4.0	hr
Drying Time, Maximum	8.0	hr
Suggested Max Moisture	0.040	%
Suggested Shot Size	30 to 80	%
Rear Temperature	221 to 254	°C
Middle Temperature	221 to 266	°C
Front Temperature	243 to 277	°C
Nozzle Temperature	243 to 277	°C
Processing (Melt) Temp	243 to 277	°C
Mold Temperature	60.0 to 82.2	°C
Back Pressure	0.345 to 0.689	MPa
Screw Speed	40 to 70	rpm
Vent Depth	0.038 to 0.076	mm

Notes

¹ Typical properties: these are not to be construed as specifications.

² 50 mm/min

³ Type I, 50 mm/min

⁴ 1.3 mm/min

⁵ 2.0 mm/min

⁶ Yield

⁷ 80*10*3 sp=62mm

⁸ 80*10*3

⁹ 80*10*4 mm

¹⁰ Rate B (120°C/h), Loading 2 (50 N)