

Lexan* Resin FXG154

Americas: COMMERCIAL

FXG154 is a Lexan PC grade with the Diamond effect. Color Package may affect properties, Application testing always recommended.

Property

TYPICAL PROPERTIES ⁽¹⁾			
	Value	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	58	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	57	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	5.9	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	39	%	ASTM D 638
Tensile Modulus, 5 mm/min	2680	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	98	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2390	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	61	MPa	ISO 527
Tensile Stress, break, 5 mm/min	54	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	6.2	%	ISO 527
Tensile Strain, break, 5 mm/min	75	%	ISO 527
Tensile Modulus, 1 mm/min	2430	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	94	MPa	ISO 178
Flexural Modulus, 2 mm/min	2340	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	752	J/m	ASTM D 256
Izod Impact, notched, -30°C	142	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	62	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	51	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	16	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	58	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	153	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	133	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	7.E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	147	°C	ISO 306
Vicat Softening Temp, Rate B/120	149	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	129	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.2	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.5 - 0.7	%	SABIC Method
Melt Flow Rate, 200°C/3.8 kgf	2.5	g/10 min	ASTM D 1238
Density	1.2	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.15	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.09	%	ISO 62
Melt Volume Rate, MVR at 220°C/5.0 kg	2	cm ³ /10 min	ISO 1133

Processing

Parameter	Value	Unit
Extrusion Blow Molding		
Drying Temperature	120	°C
Drying Time	2 - 4	hrs
Maximum Moisture Content	0.02	%
Minimum Moisture Content	0.01	%
Melt Temperature (Parison)	265 - 280	°C
Barrel - Zone 1 Temperature	260 - 290	°C
Barrel - Zone 2 Temperature	260 - 290	°C
Barrel - Zone 3 Temperature	260 - 290	°C
Barrel - Zone 4 Temperature	260 - 290	°C
Adapter - Zone 5 Temperature	260 - 290	°C
Mold Temperature	60 - 100	°C

Source GMD, last updated:03/14/2007

- Uncontaminated regrind up to 25% is allowed.
- Screw configuration affects melt temperature. A low shear, 2.5:1
- Mold temperatures of 65°C - 95°C (150°F - 200°F) produce best surface appearance.
- 15-50 rpm screw speed suggested. Adjust actual rpm for desired output while maintaining desired melt temperature range. Increasing screw speed increases shear heating; use a hand-held pyrometer to measure melt temperature. Adjust barrel temperatures to maintain recommended melt temperature range.

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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