



LEXAN™ Resin FXG154

Asia Pacific: COMMERCIAL

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

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	590	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	580	kgf/cm ²	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	27300	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	990	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	24300	kgf/cm ²	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	76	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	14	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	632	cm-kgf	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



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THERMAL			
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 (5)	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



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PROCESSING PARAMETERS	TYPICAL 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

- 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.