



LEXAN™ Resin FXG1414T
Americas: COMMERCIAL

PC-siloxane copolymer in special "Diamond Sparkle" colors. Medium flow. Improved toughness compared to medium flow standard PC in same color. Color package may affect performance.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	590	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	450	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	5.7	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	52	%	ASTM D 638
Tensile Modulus, 50 mm/min	21000	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	850	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	22700	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 50 mm/min	56	MPa	ISO 527
Tensile Stress, break, 50 mm/min	49	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	5.4	%	ISO 527
Tensile Strain, break, 50 mm/min	11.3	%	ISO 527
Tensile Modulus, 1 mm/min	2250	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	88	MPa	ISO 178
Flexural Modulus, 2 mm/min	2150	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	53	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	35	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	508	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	32	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	19	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	45	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	139	°C	ASTM D 1525



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THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	121	°C	ASTM D 648
CTE, -40°C to 95°C, flow	6.7E-05	1/°C	ASTM E 831
CTE, -40°C to 95°C, xflow	8.E-05	1/°C	ASTM E 831
CTE, 23°C to 80°C, flow	6.7E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	8.E-05	1/°C	ISO 11359-2
Ball Pressure Test, 75°C +/- 2°C	PASS	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	139	°C	ISO 306
Vicat Softening Temp, Rate B/120	142	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	117	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.18	-	ASTM D 792
Mold Shrinkage on Tensile Bar, flow (2) (5)	0.4 - 0.8	%	SABIC Method
Mold Shrinkage, flow, 3.2 mm (5)	0.4 - 0.8	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm (5)	0.4 - 0.8	%	SABIC Method
Melt Flow Rate, 300°C/1.2 kgf	10	g/10 min	ASTM D 1238
Density	1.18	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.13	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.09	%	ISO 62
Melt Volume Rate, MVR at 300°C/1.2 kg	9	cm ³ /10 min	ISO 1133



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	120	°C
Drying Time	3 - 4	hrs
Drying Time (Cumulative)	48	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	295 - 315	°C
Nozzle Temperature	290 - 310	°C
Front - Zone 3 Temperature	295 - 315	°C
Middle - Zone 2 Temperature	280 - 305	°C
Rear - Zone 1 Temperature	215 - 295	°C
Mold Temperature	70 - 95	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	40 - 70	rpm
Shot to Cylinder Size	40 - 60	%
Vent Depth	0.025 - 0.076	mm

• NOTE: Back Pressure, Screw Speed, Shot to Cylinder Size and Vent Depth are only mentioned as general guidelines. These may not apply or need adjustment in specific situations such as low shot sizes, thin wall molding and gas-assist molding.



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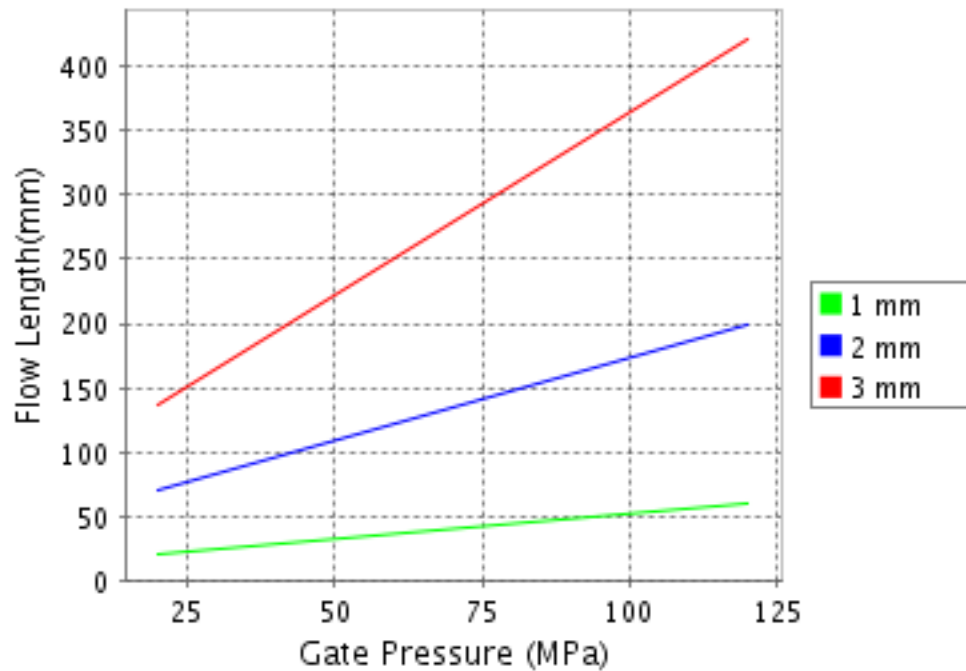
CALCULATED FLOW LENGTH INDICATION

Moldflow® Radial Flow Analysis

LEXAN® FXG1414T

Melt Temperature : 305°C

Mold Temperature : 85°C



Note: Technical support is recommended if Gate Pressure is greater than 80 MPa. Contact your local representative.

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