

LEXANT™ FR RESIN BM5225Y

REGION ASIA

DESCRIPTION

LEXANT™ BM5225Y Polycarbonate resin is an injection moldable non chlorinated/brominated mineral-filled flame retardant grade. It features high modulus, good flow, ductility and low warpage. It has a UL94 V0@1.5mm and 5VB@1.5mm flame rating and is a good candidate for thin wall applications.

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yld, Type I, 5 mm/min	55	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	34	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2.8	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	5	%	ASTM D638
Tensile Modulus, 5 mm/min	5850	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	98	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	6010	MPa	ASTM D790
Hardness, Rockwell R	109	-	ASTM D785
Tensile Stress, yield, 5 mm/min	56	MPa	ISO 527
Tensile Stress, break, 5 mm/min	30	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.8	%	ISO 527
Tensile Strain, break, 5 mm/min	5	%	ISO 527
Tensile Modulus, 1 mm/min	5570	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	98	MPa	ISO 178
Flexural Modulus, 2 mm/min	6150	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, notched, 23°C	50	J/m	ASTM D256
Izod Impact, notched, -30°C	37	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	20	J	ASTM D3763
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	6	kJ/m ²	ISO 179/1eA
THERMAL ⁽¹⁾			
Vicat Softening Temp, Rate B/50	98	°C	ASTM D1525
HDT, 0.45 MPa, 3.2 mm, unannealed	93	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	85	°C	ASTM D648
CTE, 23°C to 80°C, flow	3.4E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	6.9E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	87	°C	ISO 75 /Af
Relative Temp Index, Elec ⁽²⁾	80	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽²⁾	80	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽²⁾	80	°C	UL 746B
PHYSICAL ⁽¹⁾			
Specific Gravity	1.39	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm ⁽³⁾	0.3	%	SABIC method

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Melt Flow Rate, 260°C/2.16 kgf	12	g/10 min	ASTM D1238
Density	1.4	g/cm ³	ISO 1183
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	E207780-101901446	-	-
UL Recognized, 94-5VB Flame Class Rating	≥1.5	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating	≥1.2	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	≥0.8	mm	UL 94
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	90 – 105	°C	
Drying Time	4 – 6	Hrs	
Drying Time (Cumulative)	16	Hrs	
Melt Temperature	270 – 300	°C	
Nozzle Temperature	280 – 300	°C	
Front - Zone 3 Temperature	270 – 290	°C	
Middle - Zone 2 Temperature	260 – 280	°C	
Rear - Zone 1 Temperature	250 – 270	°C	
Mold Temperature	70 – 90	°C	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(3) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article. The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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