

CYCOLOY™ FR RESIN BM5225Y

REGION ASIA

DESCRIPTION

BM5225Y resin is a mineral filled grade featuring of high modulus, good flow and ductility, low warpage. It is of non-Br & non-Cl flame retardant systems intended to meet thin wall flame resistance and various environmental requirements.

TYPICAL PROPERTY VALUES

Revision 20170913

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	55	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	34	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.8	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	5	%	ASTM D 638
Tensile Modulus, 5 mm/min	5850	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	6010	MPa	ASTM D 790
Hardness, Rockwell R	109	-	ASTM D 785
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			
Izod Impact, notched, 23°C	50	J/m	ASTM D 256
Izod Impact, notched, -30°C	37	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	20	J	ASTM D 3763
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	6	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	98	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	93	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	85	°C	ASTM D 648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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
PHYSICAL			
Specific Gravity	1.39	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.3	%	SABIC method
Melt Flow Rate, 260°C/2.16 kgf	12	g/10 min	ASTM D 1238
Density	1.4	g/cm ³	ISO 1183
FLAME CHARACTERISTICS			
UL Recognized, 94V-1 Flame Class Rating (3)	0.8	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating (3)	1.5	mm	UL 94
UL Recognized, 94-5VB Rating (3)	1.5	mm	UL 94
INJECTION MOLDING			
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	

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