

CYCOLOY™ FR RESINS CM6220

REGION ASIA

DESCRIPTION

CYCOLOY CM6220 resin is a mineral filled modified PC blend featuring of high modulus (6GPa), 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 20191022

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	3	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	15	%	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	6030	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	3	%	ISO 527
Tensile Strain, break, 5 mm/min	6	%	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	95	J/m	ASTM D 256
Izod Impact, notched, -30°C	52	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	30	J	ASTM D 3763
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	7	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	92	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	85	°C	ASTM D 648
CTE, 23°C to 80°C, flow	3.4E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	7.2E-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	0.2 – 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	0.8	mm	UL 94

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
UL Recognized, 94V-0 Flame Class Rating	1.5	mm	UL 94
UL Recognized, 94-5VB Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING			
Drying Temperature	85 – 95	°C	
Drying Time	4 – 6	hrs	
Drying Time (Cumulative)	16	hrs	
Melt Temperature	255 – 285	°C	
Nozzle Temperature	255 – 285	°C	
Front - Zone 3 Temperature	255 – 285	°C	
Middle - Zone 2 Temperature	255 – 285	°C	
Rear - Zone 1 Temperature	245 – 280	°C	
Mold Temperature	70 – 90	°C	

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