CYCOLOY™ FR RESIN RCX7233

REGION ASIA

DESCRIPTION

Cycoloy* RCX7233 (experimental grade name EXCY0355) resin is an injection moldable impact modified PC blend with non-brominated and non-chlorinated flame retardant. It contains 30% post consumer recycle content with a UL-94 V0 rating @ 0.75 mm for all color. Developed for applications require excellent flow and impact balance with thin wall flame resistance. Limited availability and restricted color only.

TYPICAL PROPERTY VALUES

Revision 20191031

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	60	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	55	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	4	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	60	%	ASTM D 638
Tensile Modulus, 5 mm/min	2500	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	100	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2400	MPa	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	690	J/m	ASTM D 256
Izod Impact, notched, -30°C	130	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	57	J	ASTM D 3763
Izod Impact, notched 80*10*3 +23°C	50	kJ/m²	ISO 180/1A
THERMAL			
Vicat Softening Temp, Rate B/50	107	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	87	°C	ASTM D 648
HDT, 0.45 MPa, 6.4 mm, unannealed	103	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	93	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.5E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.5E-05	1/°C	ASTM E 831
Relative Temp Index, Elec [1]	80	°C	UL 746B
Relative Temp Index, Mech w/impact [1]	80	°C	UL 746B
Relative Temp Index, Mech w/o impact [1]	80	°C	UL 746B
PHYSICAL			
Specific Gravity	1.19	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.4 – 0.6	%	SABIC method
Melt Flow Rate, 260°C/2.16 kgf	19	g/10 min	ASTM D 1238
Water Absorption, (23°C/sat)	0.15	%	ISO 62
ELECTRICAL			
Hot-Wire Ignition (HWI), PLC 2	≥3	mm	UL 746A
FLAME CHARACTERISTICS [1]			
UL Yellow Card Link	E207780-101883169	-	-
UL Recognized, 94V-0 Flame Class Rating	≥0.75	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	≥0.6	mm	UL 94

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
UL Recognized, 94V-2 Flame Class Rating	≥0.4	mm	UL 94
INJECTION MOLDING			
Drying Temperature	80 – 90	°C	
Drying Time	2 – 4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	250 – 300	°C	
Nozzle Temperature	250 – 300	°C	
Front - Zone 3 Temperature	250 – 300	°C	
Middle - Zone 2 Temperature	240 – 290	°C	
Rear - Zone 1 Temperature	230 – 280	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	60 – 85	°C	
Vent Depth	0.03 - 0.075	mm	

(1) 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.

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