

CYCOLOYTM FR RESIN RCY6214

REGION ASIA

DESCRIPTION

CYCOLOY RCY6214 resin is an injection moldable PC/ABS blend with non-brominated and non-chlorinated flame retardant. It contains 35% post consumer recycle content with a UL-94 V0 rating @ 1.5 mm. Developed for wide variety of applications that require balanced flow and impact performance. Limited availability and restricted color only.

TYPICAL PROPERTY VALUES

Revision 20190814

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	47	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	4	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	40	%	ASTM D 638
Tensile Modulus, 50 mm/min	2500	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	90	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2400	MPa	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	500	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	50	J	ASTM D 3763
Izod Impact, notched 80*10*3 +23°C	51	kJ/m ²	ISO 180/1A
THERMAL			
Vicat Softening Temp, Rate B/50	100	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	85	°C	ASTM D 648
HDT, 0.45 MPa, 6.4 mm, unannealed	101	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	92	°C	ASTM D 648
CTE, -40°C to 60°C, flow	7.1E-05	1/°C	ASTM E 831
CTE, -40°C to 60°C, xflow	7.2E-05	1/°C	ASTM E 831
Relative Temp Index, Elec ⁽¹⁾	85	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽¹⁾	85	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽¹⁾	85	°C	UL 746B
PHYSICAL			
Specific Gravity	1.18	-	ASTM D 792
Water Absorption, 24 hours	0.1	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm	0.4 – 0.6	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.4 – 0.6	%	SABIC method
Melt Flow Rate, 260°C/2.16 kgf	21	g/10 min	ASTM D 1238
ELECTRICAL			
Hot-Wire Ignition (HWI), PLC 2	≥3	mm	UL 746A
FLAME CHARACTERISTICS ⁽¹⁾			
UL Yellow Card Link	E207780-100937373	-	-
UL Recognized, 94V-0 Flame Class Rating	≥1.5	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	≥1.2	mm	UL 94

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
UL Recognized, 94HB Flame Class Rating	≥0.3	mm	UL 94
INJECTION MOLDING			
Drying Temperature	80 – 90	°C	
Drying Time	3 – 4	hrs	
Drying Time (Cumulative)	8	hrs	
Maximum Moisture Content	0.04	%	
Melt Temperature	245 – 275	°C	
Nozzle Temperature	245 – 275	°C	
Front - Zone 3 Temperature	245 – 275	°C	
Middle - Zone 2 Temperature	220 – 265	°C	
Rear - Zone 1 Temperature	220 – 255	°C	
Mold Temperature	60 – 80	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	30 – 80	%	
Vent Depth	0.038 – 0.076	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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