

CYCOLOY™ FR RESINS C9210

REGION EUROPE

DESCRIPTION

CYCOLOY C9210 Polycarbonate/Acrylonitrile Butadiene Styrene (PC/ABS) blend is an impact modified, good flow and heat resistant injection moldable, non chlorinated/brominated and No PFAS intentionally added flame retardant grade. It has a UL94 V0 flame rating. This grade is an excellent candidate for a variety of large size applications.

TYPICAL PROPERTY VALUES

Revision 20260423

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield, 50 mm/min ⁽¹⁾	57	MPa	ISO 527
Tensile Stress, break, 50 mm/min ⁽²⁾	48	MPa	ISO 527
Tensile Strain, yield, 50 mm/min ⁽¹⁾	3.5	%	ISO 527
Tensile Strain, break, 50 mm/min	60	%	ISO 527
Flexural Modulus, 2 mm/min	2850	MPa	ISO 178
Flexural Stress, yield, 2 mm/min ⁽¹⁾	90	MPa	ISO 178
Flexural Stress, break, 2 mm/min ⁽²⁾	80	MPa	ISO 178
Tensile Modulus, 50 mm/min	2800	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	41	%	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min ⁽¹⁾	3.3	%	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min ⁽²⁾	45	MPa	ASTM D638
Tensile Stress, yld, Type I, 50 mm/min ⁽¹⁾	55	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2850	MPa	ASTM D790
Flexural Stress, yld, 1.3 mm/min, 50 mm span ⁽¹⁾	93	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span ⁽²⁾	92	MPa	ASTM D790
IMPACT			
Izod Impact, notched 80*10*4 +23°C	48	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	11	kJ/m ²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	NB	kJ/m ²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	NB	kJ/m ²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	44	kJ/m ²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	10	kJ/m ²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	NB	kJ/m ²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	NB	kJ/m ²	ISO 179/1eU
Izod Impact, notched, 23°C	630	J/m	ASTM D256
Izod Impact, notched, -30°C	120	J/m	ASTM D256
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D4812
Izod Impact, unnotched, -30°C	NB	J/m	ASTM D4812
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	100	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	88	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	97	°C	ASTM D648
Vicat Softening Temp, Rate B/50	109	°C	ISO 306

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CHEMISTRY THAT MATTERS™



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate B/120	111	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	93	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	102	°C	ISO 75/Bf
Ball Pressure Test			
100°C +/- 2°C	PASS	-	IEC 60695-10-2
CTE, -40°C to 40°C, flow	5.70E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.50E-05	1/°C	ASTM E831
PHYSICAL			
Melt Flow Rate, 260°C/2.16 kgf	9	g/10 min	ASTM D1238
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.8	%	SABIC method
Melt Volume Rate, MVR at 260°C/2.16 kg	9	cm ³ /10 min	ISO 1133
Specific Gravity	1.2	-	ASTM D792
FLAME CHARACTERISTICS			
UL Yellow Card Link	E45329	-	-
UL Recognized, 94V-2 Flame Class Rating	.75	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating	1.5	mm	UL 94
Glow Wire Flammability Index 960°C, passes at	3	mm	IEC 60695-2-12
INJECTION MOLDING			
Drying Temperature	90 – 100	°C	
Drying Time	2 – 4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	250 – 280	°C	
Nozzle Temperature	230 – 270	°C	
Front - Zone 3 Temperature	240 – 280	°C	
Middle - Zone 2 Temperature	230 – 270	°C	
Rear - Zone 1 Temperature	210 – 240	°C	
Mold Temperature	60 – 90	°C	

(1) If applicable

(2) If no yield

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