CYCOLOY™ FR RESINS C4220

REGION EUROPE

DESCRIPTION

PC+ABS Blend with 20% Glass Reinforce. High heat resistance; Excellent balance strength/rigidity; Good impact/appearance.

TYPICAL PROPERTY VALUES

Revision 20200212

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield, 5 mm/min	90	MPa	ISO 527
Tensile Stress, break, 5 mm/min	90	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.5	%	ISO 527
Tensile Strain, break, 5 mm/min	2.5	%	ISO 527
Tensile Modulus, 1 mm/min	6000	MPa	ISO 527
Flexural Stress, break, 2 mm/min	135	MPa	ISO 178
Flexural Modulus, 2 mm/min	5300	MPa	ISO 178
Ball Indentation Hardness, H358/30	116	MPa	ISO 2039-1
Hardness, Rockwell R	121	-	ISO 2039-2
IMPACT			
Izod Impact, unnotched 80*10*3 +23°C	15	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*3 +23°C	8	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	25	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	8	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	7	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	8	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm	15	kJ/m²	ISO 179/1eU
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	9	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	8	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	30	kJ/m²	ISO 179/1eU
THERMAL			
Thermal Conductivity	0.2	W/m-°C	ISO 8302
Ball Pressure Test, 75°C +/- 2°C	PASSES	-	IEC 60695-10-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	135	°C	ISO 306
Vicat Softening Temp, Rate B/120	137	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	135	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	129	°C	ISO 75/Ae
Relative Temp Index, Elec	60	°C	UL 746B
Relative Temp Index, Mech w/impact	60	°C	UL 746B
Relative Temp Index, Mech w/o impact	60	°C	UL 746B
PHYSICAL			
Mold Shrinkage on Tensile Bar, flow	0.2 – 0.4	%	SABIC method
Density	1.3	g/cm³	ISO 1183

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Water Absorption, (23°C/sat)	0.6	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62
Melt Volume Rate, MVR at 260°C/5.0 kg	12	cm³/10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	>1.E+15	Ohm-cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ohm	IEC 60093
INJECTION MOLDING			
Drying Temperature	100 – 110	°C	
Drying Time	2 – 4	hrs	
Melt Temperature	240 – 280	°C	
Mold Temperature	50 – 80	°C	

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