

CYCOLOY* C1200HF Resin

Acrylonitrile Butadiene Styrene + PC

SABIC Innovative Plastics Europe



Prospector

Product Description

CYCOLOY C1200HF is the improved version of CYCOLOY C1200 and has been developed to provide enhanced productivity and surface appearance for complex designs, whilst maintaining an excellent property balance.

General

Material Status	• Commercial: Active
Availability	• Europe
Features	• Pleasing Surface Appearance
RoHS Compliance	• RoHS Compliant
Forms	• Pellets
Processing Method	• Injection Molding

Physical	Nominal Value	Unit	Test Method
Density	1.15	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR)			ISO 1133
260°C/2.16 kg	8.00	cm ³ /10min	
260°C/5.0 kg	22.0	cm ³ /10min	
Molding Shrinkage - Flow	0.50 to 0.70	%	ASTM D955
Water Absorption			ISO 62
Saturation, 23°C	0.60	%	
Equilibrium, 23°C, 50% RH	0.20	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2400	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/5 ISO 527-2/50
Yield	55.0	MPa	
Break	45.0	MPa	
Tensile Strain			
Yield	5.0	%	ISO 527-2/5
Yield	4.0	%	ISO 527-2/50
Break	100	%	ISO 527-2/5
Break	> 50	%	ISO 527-2/50
Flexural Modulus ²	2300	MPa	ISO 178
Flexural Strength ^{2, 3}	80.0	MPa	ISO 178
Taber Abrasion Resistance			ASTM D1044
1000 Cycles, 1000 g, CS-17 Wheel	63.0	mg	

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁴			ISO 179/1eA
-30°C	30.0	kJ/m ²	
23°C	50.0	kJ/m ²	
Notched Izod Impact Strength ⁵			ISO 180/1A
-30°C	30.0	kJ/m ²	
23°C	50.0	kJ/m ²	

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	115		ISO 2039-2
Ball Indentation Hardness (H 358/30)	96.0	MPa	ISO 2039-1



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Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁶			
0.45 MPa, Unannealed, 100 mm Span	128	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 100 mm Span	108	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	132	°C	ISO 306/B50
--	134	°C	ISO 306/B120
CLTE			ISO 11359-2
Flow: -40 to 40°C	0.000080	cm/cm/°C	
Transverse: -40 to 40°C	0.000080	cm/cm/°C	
Thermal Conductivity	0.20	W/m/K	ISO 8302
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohm·cm	IEC 60093
Relative Permittivity			IEC 60250
50 Hz	2.80		
60 Hz	2.80		
1E+6 Hz	2.70		
Dissipation Factor			IEC 60250
50 Hz	0.0020		
60 Hz	0.0020		
1E+6 Hz	0.0070		
Comparative Tracking Index	250	V	IEC 60112
Electric Strength			IEC 60243-1
0.800 mm, in Oil	35	kV/mm	
1.60 mm, in Oil	25	kV/mm	
3.20 mm, in Oil	17	kV/mm	
Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL			UL 94
1.20 mm	HB		
3.00 mm	HB		
Glow Wire Flammability Index (1.00 mm)	650	°C	IEC 60695-2-12
Oxygen Index	23	%	ISO 4589-2
UL 746	Nominal Value	Unit	Test Method
RTI Str	105	°C	UL 746
RTI Imp	80.0	°C	UL 746
RTI Elec	105	°C	UL 746
Comparative Tracking Index (CTI) (PLC)	PLC 2		UL 746
Additional Information	Nominal Value	Unit	Test Method
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
Injection	Nominal Value	Unit	
Drying Temperature	100 to 110	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	60.0 to 80.0	°C	
Rear Temperature	230 to 260	°C	
Middle Temperature	250 to 290	°C	
Front Temperature	250 to 290	°C	
Nozzle Temperature	240 to 280	°C	
Processing (Melt) Temp	260 to 290	°C	
Mold Temperature	60.0 to 90.0	°C	



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Notes

¹ Typical properties: these are not to be construed as specifications.	
² 2.0 mm/min	
³ Yield	
⁴ 80*10*3 sp=62mm	
⁵ 80*10*3	
⁶ 120*10*4 mm	

