

CYCOLOY™ CE3510 resin

Polycarbonate + ABS

SABIC Innovative Plastics Europe

Message:

Flame retardant PC/ABS blend using non-brominated and non-chlorinated flame retardant systems, offering high impact, high heat and excellent extrusion and thermoforming characteristics. Halogen free according to DIN VDE 0472/815 for cable channels

General Information			
UL YellowCard	E45329-101239304		
Features	Bromine Free		
	Chlorine Free		
	Flame Retardant		
	Good Processability		
	High Heat Resistance		
	High Impact Resistance		
Uses	Wire & Cable Applications		
Agency Ratings	DIN VDE 0472 Part 815		
RoHS Compliance	RoHS Compliant		
Processing Method	Profile Extrusion		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.20	g/cm ³	ASTM D792
--	1.21	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	8.00	cm ³ /10min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹	2680	MPa	ASTM D638
Tensile Strength			
Yield ²	64.0	MPa	ASTM D638
Yield	65.0	MPa	ISO 527-2/50
Break ³	49.0	MPa	ASTM D638
Break	50.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	4.3	%	ASTM D638
Yield	4.6	%	ISO 527-2/50
Break ⁵	35	%	ASTM D638
Break	> 50	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁶	2610	MPa	ASTM D790
-- ⁷	2480	MPa	ISO 178

Flexural Stress			
--	95.0	MPa	ISO 178
Yield, 50.0 mm Span ⁸	95.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹			ISO 179/1eA
	14		
-30°C	14	kJ/m ²	
	45		
23°C	45	kJ/m ²	
Charpy Unnotched Impact Strength ¹⁰			ISO 179/1eU
	No Break		
-30°C	No Break		
	No Break		
23°C	No Break		
Notched Izod Impact			
-30°C	110	J/m	ASTM D256
23°C	660	J/m	ASTM D256
-30°C ¹¹	12	kJ/m ²	ISO 180/1A
0°C ¹²	14	kJ/m ²	ISO 180/1A
23°C ¹³	20	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength ¹⁴			ISO 180/1U
	No Break		
-30°C	No Break		
	No Break		
23°C	No Break		
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	111	°C	ASTM D648

0.45 MPa, Unannealed, 100 mm Span ¹⁵	111	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 3.20 mm	100	°C	ASTM D648
1.8 MPa, Unannealed, 100 mm Span ¹⁶	100	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	116	°C	ISO 306/B50
--	118	°C	ISO 306/B120
Ball Pressure Test (75°C)	Pass		IEC 60695-10-2
RTI Elec	90.0	°C	UL 746
RTI Imp	90.0	°C	UL 746
RTI Str	90.0	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Electric Strength			IEC 60243-1
0.800 mm, in Oil	44	kV/mm	
1.60 mm, in Oil	27	kV/mm	
3.20 mm, in Oil	18	kV/mm	
	PLC 3		
Comparative Tracking Index (CTI)	PLC 3		UL 746
	225		
Comparative Tracking Index	225	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.750 mm	V-2		
1.50 mm	V-0		
Glow Wire Flammability Index (3.00 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
1.00 mm	825	°C	
1.50 mm	825	°C	
3.00 mm	825	°C	
Extrusion	Nominal Value	Unit	
Drying Temperature	80.0 to 85.0	°C	
Drying Time	2.0 to 4.0	hr	
Hopper Temperature	60.0 to 80.0	°C	
Cylinder Zone 1 Temp.	235 to 260	°C	
Cylinder Zone 2 Temp.	240 to 265	°C	
Cylinder Zone 3 Temp.	245 to 270	°C	
Cylinder Zone 4 Temp.	245 to 270	°C	
Adapter Temperature	245 to 270	°C	

Melt Temperature	230 to 270	°C
Die Temperature	235 to 260	°C
Calibration Temp, First	60.0 to 80.0	°C

NOTE

1.	50 mm/min
2.	Type I, 50 mm/min
3.	Type I, 50 mm/min
4.	Type I, 50 mm/min
5.	Type I, 50 mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	80*10*4 sp=62mm
10.	80*10*4 sp=62mm
11.	80*10*4
12.	80*10*4
13.	80*10*4
14.	80*10*4
15.	120*10*4 mm
16.	120*10*4 mm

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