

Makrolon® FR6020 RE

Covestro - Polycarbonates - *Polycarbonate*

General Information

Product Description

polycarbonate; medium viscosity; easy release; UV stabilized; flame retardant; chlorine- and bromine-free flame retardancy; non-reinforced; good hydrolysis resistance; impact modified; injection molding; Information technology; electrical/electronic

Partially bio-circular grade / Attributed via mass balance (according to ISCC PLUS Standard).

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Additive	• Flame Retardant	• Impact Modifier	• UV Stabilizer
Features	• Bromine Free	• Good Mold Release	• Impact Modified
	• Chlorine Free	• Good Surface Finish	• Medium Viscosity
	• Flame Retardant	• Hydrolysis Resistant	• UV Stabilized
Uses	• Electrical/Electronic Applications		
Agency Ratings	• ISCC PLUS		
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		
ISO Designation	• PC-FR		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.20	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	9.0	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 2577
Across Flow	0.60 to 0.80	%	
Flow	0.60 to 0.80	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	345000	psi	ISO 527-1/1
Tensile Stress (Yield, 73°F)	8410	psi	ISO 527-2/50
Tensile Stress (Break, 73°F)	8410	psi	ISO 527-2/50
Tensile Strain (Yield, 73°F)	6.0	%	ISO 527-2/50
Tensile Strain (Break, 73°F)	> 100	%	ISO 527-2/50
Flexural Modulus ² (73°F)	352000	psi	ISO 178
Flexural Stress ² (73°F)	13100	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	16	ft·lb/in ²	
73°F	33	ft·lb/in ²	
Notched Izod Impact Strength			ISO 180/A
-22°F	12	ft·lb/in ²	
73°F	32	ft·lb/in ²	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	261	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	237	°F	ISO 75-2/A
Vicat Softening Temperature			
--	277	°F	ISO 306/B120
--	273	°F	ISO 306/B50
CLTE - Flow (73 to 131°F)	2.7E-5	in/in/°F	ISO 11359-2



CLTE - Transverse (73 to 131°F)		3.2E-5 in/in/°F	ISO 11359-2
Flammability		Nominal Value Unit	Test Method
Flame Rating			UL 94
0.06 in		V-0	
0.08 in	•	V-0	
	•	5VB	
0.12 in		5VB	

Notes

¹ Typical properties: these are not to be construed as specifications.

² 0.079 in/min

