

**Makrolon® MR6005 HF**

 Covestro - Polycarbonates - *Polycarbonate*
**General Information**
**Product Description**

 low viscosity; MVR (300 °C/1.2 kg) 18 cm<sup>3</sup>/10 min; easy release; impact modified; improved flammability; housing parts; electrical/electronic; Information technology

**General**

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Additive	• Impact Modifier		
Features	• Good Mold Release	• Impact Modified	• Low Viscosity
Uses	• Electrical/Electronic Applications	• Housings	
RoHS Compliance	• RoHS Compliant		
ISO Designation	• PC-I FR		

**Properties <sup>1</sup>**

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.20	g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	18	cm <sup>3</sup> /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)	341000	psi	ISO 527-1/1
Tensile Stress (Yield, 73°F)	8700	psi	ISO 527-2/50
Tensile Stress (Break, 73°F)	7830	psi	ISO 527-2/50
Tensile Strain (Yield, 73°F)	5.6	%	ISO 527-2/50
Tensile Strain (Break, 73°F)	80	%	ISO 527-2/50
Flexural Modulus <sup>2</sup> (73°F)	334000	psi	ISO 178
Flexural Stress <sup>2</sup> (73°F)	13500	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F, Complete Break	10	ft·lb/in <sup>2</sup>	
73°F, Partial Break	28	ft·lb/in <sup>2</sup>	
Notched Izod Impact Strength <sup>3</sup>			ISO 180/A
-22°F, Complete Break	8.6	ft·lb/in <sup>2</sup>	
73°F, Partial Break	26	ft·lb/in <sup>2</sup>	
Multi-Axial Instrumented Impact Energy (73°F)	38.4	ft·lb	ISO 6603-2
Multi-Axial Instrumented Impact Peak Force (73°F)	1120	lbf	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	268	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	243	°F	ISO 75-2/A
Vicat Softening Temperature			
--	280	°F	ISO 306/B120
--	277	°F	ISO 306/B50
Ball Pressure Test (273°F)	Pass		IEC 60695-10-2
CLTE - Flow (73 to 131°F)	4.3E-5	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	4.3E-5	in/in/°F	ISO 11359-2



Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.06 in		V-0	
0.12 in		V-0	
Glow Wire Flammability Index			IEC 60695-2-12
0.06 in	1760	°F	
0.12 in	1760	°F	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.06 in	1560	°F	
0.12 in	1650	°F	

### Processing Information

Injection	Nominal Value	Unit
Drying Temperature - Dry Air Dryer	248	°F
Drying Time - Dry Air Dryer	2.0 to 3.0	hr
Suggested Max Moisture	< 0.020	%
Suggested Shot Size	30 to 70	%
Rear Temperature	482 to 500	°F
Middle Temperature	518 to 536	°F
Front Temperature	536 to 554	°F
Nozzle Temperature	554 to 572	°F
Processing (Melt) Temp	536 to 608	°F
Mold Temperature	176 to 248	°F
Back Pressure	725 to 2180	psi
Vent Depth	9.8E-4 to 3.0E-3	in

### Injection Notes

Standard Melt Temperature: 300°C  
Peripheral Screw Speed: 0.05 - 0.2 m/s  
Hold Pressure (% of Injection Pressure): 50 - 75%

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 0.079 in/min

<sup>3</sup> 3.0 mm

