Makrolon® Ai2617

Covestro - Polycarbonates - *Polycarbonate*

General Information

Product Description			
MVR (300 °C/1.2 kg) 12 cm³/10 min; medium viscosity; easy release; UV stabilized; injection molding - melt temperature 280 - 320 °C; available in clear transparent colors; Automotive interior; developed for high-gloss surfaces with highest requirements			
General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• UV Stabilizer		
Features	• Good Mold Release	• High Gloss	• UV Stabilized
Uses	• Automotive Applications	• Automotive Interior Parts	
Appearance	• Colors Available	• Translucent	
Processing Method	• Injection Molding		
ISO Designation	• PC		

Properties [1]

Physical	**Nominal Value**	**Unit**	**Test Method**
Density (73°F)	1.20	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	12	g/10 min	ISO 1133
Molding Shrinkage [2]			ISO 294-4
Across Flow : 0.0787 in	0.70	%	
Flow : 0.0787 in	0.70	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (73°F)	348000	psi	ISO 527-1/1
Tensile Stress (Yield, 73°F)	9430	psi	ISO 527-2/50
Tensile Stress (Break, 73°F)	9430	psi	ISO 527-2/50
Tensile Strain (Yield, 73°F)	6.0	%	ISO 527-2/50
Tensile Strain (Break, 73°F)	120	%	ISO 527-2/50
Nominal Tensile Strain at Break (73°F)	> 50	%	ISO 527-2/50
Flexural Modulus [3] (73°F)	341000	psi	ISO 178
Flexural Stress [3]			ISO 178
73°F	14200	psi	
3.5% Strain, 73°F	10700	psi	
Flexural Strain at Flexural Strength [4] (73°F)	7.0	%	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	No Break		
73°F	No Break		
Notched Izod Impact Strength [5]			ISO 180/A
-22°F, Complete Break	7.1	ft·lb/in²	
73°F, Partial Break	29	ft·lb/in²	
Multi-Axial Instrumented Impact Energy			ISO 6603-2
-22°F	47.9	ft·lb	
73°F	44.3	ft·lb	
Multi-Axial Instrumented Impact Peak Force			ISO 6603-2
-22°F	1420	lbf	
73°F	1210	lbf	
Hardness	**Nominal Value**	**Unit**	**Test Method**

Ball Indentation Hardness	16700	psi	ISO 2039-1

Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	277	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	253	°F	ISO 75-2/A
Vicat Softening Temperature			
--	293	°F	ISO 306/B120
--	289	°F	ISO 306/B50

Notes

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

[2] 60x60x2mm, 500 bar

[3] 0.079 in/min

[4] 2.0 mm/min

[5] 3.0 mm