Makrolon® Ai2497 ST

Covestro - Polycarbonates - *Polycarbonate*

General Information

Product Description

Automotive interior grade with specified Sensor signal Transparency; MVR (300 °C/1.2 kg) 19 cm³/10 min; medium viscosity; easy release; UV stabilized; injection molding - melt temperature 280 - 320 °C; available in black colors only; 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	• Medium Viscosity • UV Stabilized	
Uses	• Automotive Applications	• Automotive Interior Parts	
RoHS Compliance	• RoHS Compliant		
Appearance	• Black	• Colors Available	
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)	19	g/10 min	ISO 1133
Molding Shrinkage [2]			ISO 294-4
Across Flow : 0.0787 in	0.70	%	
Flow : 0.0787 in	0.65	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (73°F)	348000	psi	ISO 527-1/1
Tensile Stress (Yield, 73°F)	9280	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	5.7	ft·lb/in²	
73°F, Partial Break	29	ft·lb/in²	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Ball Indentation Hardness	16800	psi	ISO 2039-1
Thermal	**Nominal Value**	**Unit**	**Test Method**
Vicat Softening Temperature	289	°F	ISO 306/B120

Processing Information

Injection	Nominal Value	Unit
Drying Temperature - Dry Air Dryer	248	°F
Drying Time - Dry Air Dryer	4.0	hr
Suggested Max Moisture	< 0.020	%
Suggested Shot Size	30 to 70	%
Rear Temperature	482 to 518	°F
Middle Temperature	518 to 554	°F
Front Temperature	545 to 581	°F
Nozzle Temperature	518 to 581	°F
Processing (Melt) Temp	536 to 608	°F
Mold Temperature	158 to 230	°F
Back Pressure	725 to 2180	psi
Vent Depth	9.8E-4 to 3.0E-3	in

Injection Notes

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

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