LEXAN™ 203R resin

Polycarbonate

SABIC Innovative Plastics

Message:

LEXAN 203R resin is a high viscosity multi purpose polycarbonate with UV stabilization package. It also contains a release agent to ensure easy processing. This grade is UL94-V2 rated with multiple color options.

General Information			
UL YellowCard	E45329-236646		
Additive	demoulding UV stabilizer		
Features	Workability, good Viscosity, High		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.20	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	6.00	cm³/10min	ISO 1133
Molding Shrinkage - Flow [1]	0.50 - 0.70	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.35	%	ISO 62
Equilibrium, 23°C, 50% RH	0.15	%	ISO 62
Hardness	**Nominal Value**	**Unit**	**Test Method**
Ball Indentation Hardness (H 358/30)	95.0	MPa	ISO 2039-1
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2350	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield	63.0	MPa	ISO 527-2/50
Fracture	70.0	MPa	ISO 527-2/50
Tensile Strain			ISO 527-2/50
Yield	6.0	%	ISO 527-2/50
Fracture	120	%	ISO 527-2/50
Flexural Modulus [2]	2300	MPa	ISO 178
Flexural Stress	90.0	MPa	ISO 178
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	10.0	mg	Internal method
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			

-30°C [3]	15	kJ/m²	ISO 179/1eA
23°C [4]	75	kJ/m²	ISO 179/1eA
23°C	35	kJ/m²	ISO 179/2C
Charpy Unnotched Impact Strength [5]			ISO 179/1eU
-30°C	No Break		ISO 179/1eU
23°C	No Break		ISO 179/1eU
Notched Izod Impact [6]			ISO 180/1A
-30°C	12	kJ/m²	ISO 180/1A
23°C	70	kJ/m²	ISO 180/1A
Unnotched Izod Impact Strength [7]			ISO 180/1U
-30°C	No Break		ISO 180/1U
23°C	No Break		ISO 180/1U
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature [8]			
0.45 MPa, unannealed, 100 mm span	138	°C	ISO 75-2/Be
1.8 MPa, unannealed, 100 mm span	127	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	144	°C	ISO 306/B50
--	145	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE - Flow (23 to 80°C)	7.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.20	W/m/K	ISO 8302
RTI Elec	130	°C	UL 746
RTI Imp	125	°C	UL 746
RTI	125	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Dielectric Strength (3.20 mm, in Oil)	17	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
50 Hz	2.70		IEC 60250
60 Hz	2.70		IEC 60250
1 MHz	2.70		IEC 60250
Dissipation Factor			IEC 60250
50 Hz	1.0E-3		IEC 60250
60 Hz	1.0E-3		IEC 60250
1 MHz	0.010		IEC 60250
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.750 mm	V-2		UL 94
6.00 mm	V-0		UL 94
Glow Wire Flammability Index (1.00 mm)	850	°C	IEC 60695-2-12

Oxygen Index	25	%	ISO 4589-2
Optical	**Nominal Value**	**Unit**	**Test Method**
Refractive Index	1.586		ISO 489
Transmittance (2540 µm)	88.0 - 90.0	%	ASTM D1003
Haze (2540 µm)	< 0.80	%	ASTM D1003
Injection	**Nominal Value**	**Unit**	
Drying Temperature	120	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	60.0 - 80.0	°C	
Rear Temperature	270 - 300	°C	
Middle Temperature	280 - 310	°C	
Front Temperature	290 - 320	°C	
Nozzle Temperature	280 - 310	°C	
Processing (Melt) Temp	290 - 320	°C	
Mold Temperature	80.0 - 120	°C	
NOTE			
1.	Tensile Bar		
2.	2.0 mm/min		
3.	80*10*3 sp=62mm		
4.	80*10*3 sp=62mm		
5.	80*10*3 sp=62mm		
6.	80*10*3		
7.	80*10*3		
8.	120*10*4 mm		

Recommended distributors for this material

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