LEXAN™ FST9705 resin

Polycarbonate

SABIC Innovative Plastics

Message:

High visocisty PC Copolymer, OSU 55/55 compliant, low smoke, flame retardant resin

General Information			
Additive	Flame retardancy		
Features	Low smoke Copolymer Viscosity, High Flame retardancy		
Agency Ratings	OSU 55/55		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.34	g/cm³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	5.0	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR)			ISO 1133
300°C/1.2 kg	4.00	cm³/10min	ISO 1133
300°C/5.0 kg	16.8	cm³/10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.60 - 0.80	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.28	%	ISO 62
Equilibrium, 23°C, 50% RH	0.11	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [1]	2620	MPa	ASTM D638
--	2500	MPa	ISO 527-2/1
Tensile Strength			
Yield [2]	72.3	MPa	ASTM D638
Yield	74.0	MPa	ISO 527-2/50
Fracture [3]	73.2	MPa	ASTM D638
Fracture	76.6	MPa	ISO 527-2/50
Tensile Elongation			
Yield [4]	6.7	%	ASTM D638
Yield	6.8	%	ISO 527-2/50
Fracture [5]	100	%	ASTM D638
Fracture	110	%	ISO 527-2/50

Flexural Modulus			
50.0mm span [6]	2500	MPa	ASTM D790
-- [7]	2330	MPa	ISO 178
Flexural Stress			
--	107	MPa	ISO 178
Yield, 50.0mm span [8]	115	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			ASTM D256
-30°C	110	J/m	ASTM D256
23°C	190	J/m	ASTM D256
Instrumented Dart Impact (23°C, Total Energy)	80.0	J	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
1.8 MPa, unannealed, 3.20mm	121	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span [9]	117	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	140	°C	ASTM D1525 [10]
--	137	°C	ISO 306/B50
--	139	°C	ISO 306/B120
Ball Pressure Test [11] (125°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			ASTM E831, ISO 11359-2
Flow: -40 to 40°C	5.7E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Lateral: -40 to 40°C	6.0E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Flammability	**Nominal Value**	**Unit**	**Test Method**
NBS Smoke Density - Flaming, Dmax			ASTM E662
OSU peak heat release rate [12]		kW/m^2	FAR 25.853
OSU total heat release [13]		$kW \cdot min/m^2$	FAR 25.853
Vertical Burn Test			FAR 25.853
Test a (60 s), passes at	2.4	sec	FAR 25.853
Test b (12 s), passes at	0.5	sec	FAR 25.853
Injection	**Nominal Value**	**Unit**	
Drying Temperature	107	°C	
Drying Time	3.0 - 4.0	hr	
Drying Time, Maximum	12	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 - 60	%	
Rear Temperature	260 - 282	°C	
Middle Temperature	271 - 293	°C	
Front Temperature	282 - 304	°C	
Nozzle Temperature	277 - 299	°C	
Processing (Melt) Temp	282 - 304	°C	

Mold Temperature	71.1 - 104	°C
Back Pressure	0.345 - 0.689	MPa
Screw Speed	40 - 70	rpm
Vent Depth	0.025 - 0.076	mm

NOTE	
1.	5.0 mm/min
2.	Type 1, 50mm/min
3.	Type 1, 50mm/min
4.	Type 1, 50mm/min
5.	Type 1, 50mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	80*10*4 mm
10.	标准 B (120°C/h), 载荷2 (50N)
11.	Approximate maximum
12.	5 minute test
13.	2 minute test

Recommended distributors for this material

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