TAIRIREX® GP550N

Formosa Chemicals & Fibre Corporation - *General Purpose Polystyrene*

General Information

Product Description			
General Purpose PS Features: High molecular weight			
General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Features	• General Purpose	• High Molecular Weight	
Uses	• General Purpose		
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
UL File Number	• E162823		
Processing Method	• Extrusion		

Properties [1]

Physical	**Nominal Value**	**Unit**	**Test Method**
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	2.6	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	2.6	g/10 min	ISO 1133
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [2] (73°F)	455000	psi	ASTM D638
Tensile Modulus (73°F)	493000	psi	ISO 527-1/1
Tensile Strength [3] (73°F)	7250	psi	ASTM D638
Tensile Stress (73°F)	6960	psi	ISO 527-2/20
Tensile Elongation [3] (Break, 73°F)	2.0	%	ASTM D638
Tensile Strain (Break, 73°F)	3.0	%	ISO 527-2/20
Flexural Modulus [4] (73°F)	469000	psi	ASTM D790
Flexural Modulus [5] (73°F)	435000	psi	ISO 178
Flexural Strength [5] (73°F)	12200	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (73°F, 0.157 in)	4.5	ft·lb/in²	ISO 179
Notched Izod Impact (73°F, 0.250 in)	0.33	ft·lb/in	ASTM D256
Unnotched Izod Impact Strength (73°F, 0.157 in)	0.76	ft·lb/in²	ISO 180
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load [6] (66 psi, Unannealed, 0.125 in)	203	°F	ISO 75-2/B
Deflection Temperature Under Load [6] (264 psi, Annealed, 0.157 in)	208	°F	ASTM D648
Vicat Softening Temperature [7]	219	°F	ASTM D1525 [8]
Vicat Softening Temperature [9]	217	°F	ISO 306/A50
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.06 to 0.07 in, All Color)	HB		UL 94
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Residual Monomer (73°F)	< 700	ppm	

Processing Information

Injection	**Nominal Value**	**Unit**
Drying Temperature	167	°F
Drying Time	1.0 to 2.0	hr
Rear Temperature	383	°F

Middle Temperature	410 °F
Front Temperature	428 °F
Nozzle Temperature	419 °F
Processing (Melt) Temp	374 to 446 °F
Mold Temperature	68 to 158 °F

Notes

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

[2] 0.039 in/min

[3] 0.20 in/min

[4] 0.047 in/min

[5] 0.079 in/min

[6] 120°C/h

[7] Annealed 80?*2hr, 1/8"

[8] Rate A (50°C/h), Loading 1 (10 N)

[9] Annealed 80?*2hr, 4mm