

TAIRIREX® GP535N

Formosa Chemicals & Fibre Corporation - General Purpose Polystyrene

General Information

Product Description

General Purpose Grade

Features: High heat

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Features	• General Purpose	• High Heat Resistance	
Uses	• General Purpose		
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
UL File Number	• E162823		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity ²	1.04		ASTM D792
Density (73°F)	1.04	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	3.5	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	3.5	g/10 min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	455000	psi	ISO 527-1/1
Tensile Strength (73°F)	6400	psi	ASTM D638
Tensile Elongation ³ (Break, 73°F)	2.0	%	ASTM D638
Tensile Strain (Break, 73°F)	2.0	%	ISO 527-2/20
Flexural Modulus (73°F)	455000	psi	ASTM D790
Flexural Modulus (73°F)	455000	psi	ISO 178
Flexural Strength (73°F)	12700	psi	ASTM D790
Flexural Stress (73°F)	12800	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.250 in)	0.33	ft-lb/in	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load ⁴ (264 psi, Annealed, 0.250 in)	199	°F	ASTM D648
Deflection Temperature Under Load ⁴ (264 psi, Annealed, 0.125 in)	199	°F	ISO 75-2/A
Vicat Softening Temperature ⁵	199	°F	ASTM D1525 ⁶
Vicat Softening Temperature ⁷	208	°F	ISO 306/A50
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 to 0.07 in)	HB		UL 94
Additional Information	Nominal Value	Unit	Test Method
Residual Monomer	< 700	ppm	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	167	°F
Drying Time	1.0 to 2.0	hr
Rear Temperature	365	°F
Middle Temperature	401	°F
Front Temperature	419	°F



Nozzle Temperature	401 °F
Processing (Melt) Temp	356 to 437 °F
Mold Temperature	68 to 158 °F

Notes

¹ Typical properties: these are not to be construed as specifications.
² 23°C
³ 0.20 in/min
⁴ 120°C/h
⁵ Annealed 80?*2hr
⁶ Rate A (50°C/h), Loading 1 (10 N)
⁷ Annealed 80?*2hr, 4mm

