

TAIRIREX® GP5500

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)	7110	psi	ASTM D638
Tensile Stress (73°F)	6820	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)	484000	psi	ASTM D790
Flexural Modulus ⁵ (73°F)	450000	psi	ISO 178
Flexural Strength ⁴ (73°F)	152000	psi	ASTM D790
Flexural Stress ⁵ (73°F)	12300	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F, 0.157 in)	4.5	ft·lb/in ²	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/in ²	ISO 180
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load ⁶ (264 psi, Annealed, 0.125 in)	203	°F	ASTM D648
Deflection Temperature Under Load ⁶ (264 psi, Annealed, 0.157 in)	208	°F	ISO 75-2/A
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	< 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

