

FORTRON® 1200L1 - PPS

Description

Unfilled extrusion grade that has a high melt viscosity and tensile elongation.

Fortron 1200L1 is an unfilled grade recommended primarily for extrusion applications. It has a high melt viscosity and tensile elongation.

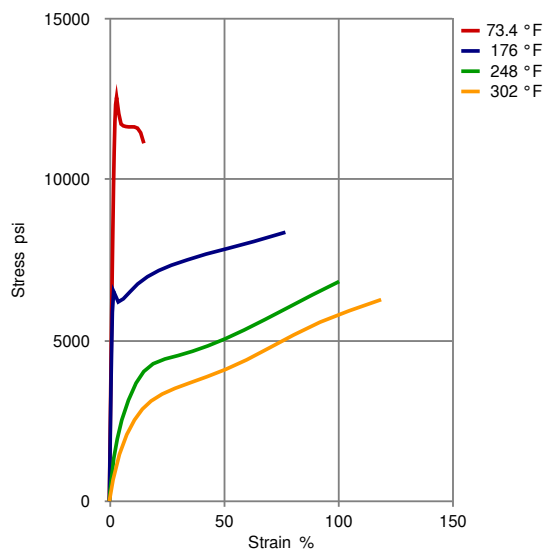
Recommended processing conditions are similar to those of our standard unfilled PPS grades.

Physical properties	Value	Unit	Test Standard
Density	83.7	lb/ft ³	ISO 1183
Molding shrinkage, parallel (flow)	1.3	%	ISO 294-4, 2577
Molding shrinkage, transverse normal	1.6	%	ISO 294-4, 2577
Water absorption, 23°C-sat	0.02	%	Sim. to ISO 62
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	580152	psi	ISO 527-1, -2
Tensile strain at yield, 50mm/min	3	%	ISO 527-1, -2
Tensile stress at break, 50mm/min	12800	psi	ISO 527-1, -2
Tensile strain at break, 50mm/min	15	%	ISO 527-1, -2
Flexural modulus, 23°C	595000	psi	ISO 178
Flexural strength, 23°C	20500	psi	ISO 178
Charpy impact strength, 23°C	95.1	ft-lb/in ²	ISO 179/1eU
Rockwell hardness (M-Scale)	93	M-Scale	ISO 2039-2
Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	527	°F	ISO 11357-1/-3
Glass transition temperature, 10°C/min	194	°F	ISO 11357-1,-2,-3
Coeff. of linear therm expansion, parallel	0.222	E-4/°F	ISO 11359-2
Coeff. of linear therm expansion, normal	0.233	E-4/°F	ISO 11359-2
Flammability at thickness h	V-0	class	UL 94
thickness tested (h)	0.1181	in	UL 94
Electrical properties	Value	Unit	Test Standard
Electric strength, 23°C (AC)	762	kV/in	IEC 60243-1

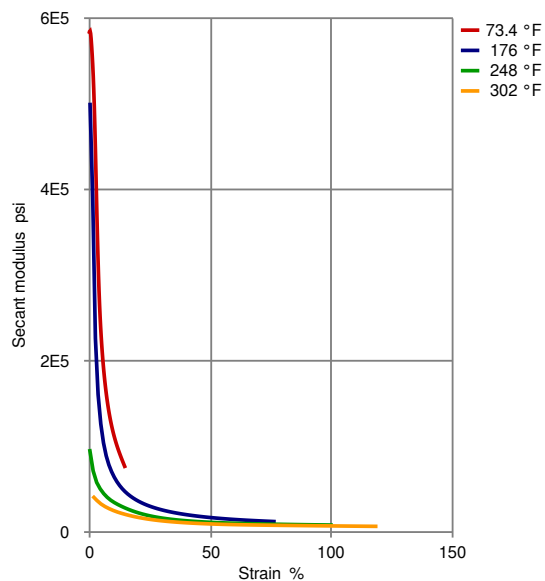


Diagrams

Stress-strain

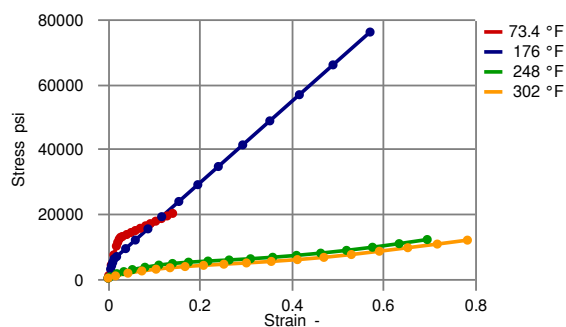


Secant modulus-strain



Tested at 5 mm/min

True Stress-strain



23 °C yield at 0.03121 strain, 88.567 stress
 80 °C yield at 0.01859 strain, 45.695 stress
 No yield at 120 °C and 150 °C
 Tested at 5 mm/min
 Poisson's ratio used is 0.40

Typical injection moulding processing conditions

Pre Drying

	Value	Unit
Necessary low maximum residual moisture content	0.02	%
Drying time	3 - 4	h
Drying temperature	212 - 284	°F



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Temperature	Value	Unit
Melt temperature	≤626	°F

Characteristics

Special Characteristics	Flame retardant, High viscosity
Product Categories	Specialty
Processing	Extrusion, Film extrusion, Injection molding, Other extrusion, Profile extrusion, Sheet extrusion
Delivery Form	Pellets

