

## PTS Tristar® PC-10FRN (V) 15 MFI, 5VA, Flame Retardant, UV Stabilized Polycarbonate With Release

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate, Unreinforced, Flame Retardant

### Material Notes:

ROHS Compliant.Information provided by Polymer Technology and Services, LLC (PTS).

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_PTS-Tristar-PC-10FRN-V-15-MFI-5VA-Flame-Retardant-UV-Stabilized-Polycarbonate-With-Release.php](http://www.lookpolymers.com/polymer_PTS-Tristar-PC-10FRN-V-15-MFI-5VA-Flame-Retardant-UV-Stabilized-Polycarbonate-With-Release.php)

Physical Properties	Metric	English	Comments
Density	1.23 g/cc	0.0444 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.18 %	0.18 %	24 hours at 73°F; ASTM D570
Melt Flow	15 g/10 min @Load 1.20 kg, Temperature 300 °C	15 g/10 min @Load 2.65 lb, Temperature 572 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	120	120	ASTM D785
Tensile Strength, Yield	58.6 MPa @Thickness 3.17 mm	8500 psi @Thickness 0.125 in	ASTM D638
Elongation at Break	75 % @Thickness 3.17 mm	75 % @Thickness 0.125 in	ASTM D638
Flexural Yield Strength	86.2 MPa @Thickness 3.17 mm	12500 psi @Thickness 0.125 in	ASTM D790
Flexural Modulus	2.14 GPa @Thickness 3.17 mm	310 ksi @Thickness 0.125 in	ASTM D790
Izod Impact, Notched	5.87 J/cm @Thickness 3.17 mm	11.0 ft-lb/in @Thickness 0.125 in	ASTM D256
Tensile Impact Strength	443 kJ/m <sup>2</sup> @Thickness 3.17 mm	211 ft-lb/in <sup>2</sup> @Thickness 0.125 in	ASTM D1822

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	70.2 µm/m-°C @Temperature -40.0 - 95.0 °C	39.0 µin/in-°F @Temperature -40.0 - 203 °F	ASTM E831-06

Thermal Properties	Metric 68.4 μm/m-°C	English 38.0 μin/in-°F	Comments
CTE, linear, Transverse to Flow	@Temperature -40.0 - 95.0 °C	@Temperature -40.0 - 203 °F	ASTM E831-06
Deflection Temperature at 0.46 MPa (66 psi)	129 °C	265 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	134 °C	273 °F	ISO 75
UL RTI, Electrical	125 °C	257 °F	
UL RTI, Mechanical with Impact	115 °C	239 °F	
UL RTI, Mechanical without Impact	125 °C	257 °F	
Flammability, UL94	V-0	V-0	
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	5VA	5VA	Black, Gray, Beige
	@Thickness 2.50 mm	@Thickness 0.0984 in	
	5VA	5VA	
	@Thickness 3.00 mm	@Thickness 0.118 in	
Oxygen Index	37.6 %	37.6 %	ASTM D2863
Glow Wire Test	775 °C	1430 °F	GWIT
	960 °C	1760 °F	GWFI

Electrical Properties	Metric	English	Comments
Electrical Resistivity	3.00e+15 ohm-cm	3.00e+15 ohm-cm	96 hours at 90°C, 50% RH; ASTM D257
	6.00e+15 ohm-cm	6.00e+15 ohm-cm	40 hours at 23°C, 50% RH; ASTM D257
Dielectric Strength	24.0 kV/mm	610 kV/in	ASTM D149
	@Thickness 3.17 mm	@Thickness 0.125 in	
Arc Resistance	60 - 120 sec	60 - 120 sec	PLC 6
Comparative Tracking Index	250 - 400 V	250 - 400 V	PLC 2
Hot Wire Ignition, HWI	15 - 30 sec	15 - 30 sec	PLC 3
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	15 - 30 sec	15 - 30 sec	PLC 3
	@Thickness 2.50 mm	@Thickness 0.0984 in	

Electrical Properties	Metric <sup>sec</sup>	English <sup>sec</sup>	Comments
	@Thickness 3.00 mm	@Thickness 0.118 in	PLC 2
High Amp Arc Ignition, HAI	60 - 120 arcs @Thickness 2.50 mm	60 - 120 arcs @Thickness 0.0984 in	PLC 1
	60 - 120 arcs @Thickness 3.00 mm	60 - 120 arcs @Thickness 0.118 in	PLC 1
	>= 120 arcs @Thickness 1.50 mm	>= 120 arcs @Thickness 0.0591 in	PLC 0
High Voltage Arc-Tracking Rate, HVTR	80.0 - 150 mm/min	3.15 - 5.91 in/min	PLC 3

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	254 - 274 °C	490 - 525 °F	
Middle Barrel Temperature	266 - 277 °C	510 - 530 °F	
Front Barrel Temperature	277 - 293 °C	530 - 560 °F	
Nozzle Temperature	271 - 293 °C	520 - 560 °F	
Melt Temperature	282 - 304 °C	540 - 580 °F	
Mold Temperature	71.1 - 93.3 °C	160 - 200 °F	
Drying Temperature	121 °C	250 °F	
Dry Time	4 hour	4 hour	
Injection Pressure	75.8 - 124 MPa	11000 - 18000 psi	
Back Pressure	0.345 - 1.38 MPa	50.0 - 200 psi	

Descriptive Properties	Value	Comments
Edge Gate	Slow to Medium	
Tab Gate	Medium to Fast	
Tunnel Gate	Fast	

## Contact Songhan Plastic Technology Co.,Ltd.

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