

## DISCOVER THE DIFFERENCE

Amco Polymers formulates TRISTAR<sup>®</sup> Polycarbonate, the most versatile PC on the market today. It can be used in any number of applications, thanks to proprietary modification with special additives. It is designed to meet and exceed a variety of technically demanding requirements. We offer a wide range of melt flow options, as well as glass filler content, custom colors and flame ratings. Our high impact UV stable grades perform exceptionally well in harsh environments while the flame retardant grades offer protection from fire and smoke where needed. TRISTAR<sup>®</sup> PC can also be used in more decorative components where bright color, transparency, or excellent surface finish is required. It has good processability and consistent properties during molding and in final use.

- ▶ Full UL Yellow Cards: V0, 5VA, RTI, Glow Wire, F1
- ▶ Impact Resistant at Low Temperatures
- ▶ Improved Chemical Resistance
- ▶ Custom Colors
- ▶ Manufactured on 3 Continents

## TRISTAR<sup>®</sup> POLYCARBONATE

## DISCOVER THE BENEFITS

Amco Polymers developed a resin to meet a stringent specification for outdoor enclosures in telecommunication applications. The product required low temperature impact (-40 C), UV stability and improved chemical resistance. The new product exceeded those requirements and improved processing capabilities; all at a lower material cost than the competitive resin system, this is the TRISTAR<sup>®</sup> PC-10FR-GY (VIM).



Property		Unit	Test Method	PC-10FRN-(V)(f1)
Physical	Specific Gravity, solid	•	ASTM D-792	1.23
	Melt Flow Index, 300°C, 1.2Kg*	g/10 min	ASTM D-1238	15
	Mold Shrinkage	%	ASTM D-955	0.5-0.7
	Water Absorption, 24 hours 73°F	%	ASTM D-570	0.18
Mechanical	Tensile Strength, yield, 0.125"	PSI (MPa)	ASTM D-638	8,500 (59)
	Tensile Elongation, break, 0.125"	%	ASTM D-638	75
	Flexural Strength, yield, 0.125"	PSI (MPa)	ASTM D-790	12,500 (86)
	Flexural Modulus, 0.125"	10 <sup>5</sup> PSI (MPa)	ASTM D-790	3.1 (2,137)
	Rockwell Hardness	R-Scale	ASTM D-785	120
Impact	Izod Impact Str., Notched, 0.125 "	ft.-lb./in. (J/m)	ASTM D-256	13.0 (693)
Thermal	Heat Deflection Temp. @ 264 PSI	°F (°C)	ASTM D-648	250 (121)
	HDT @1.8MPa	°F (°C)	ISO 75-A	273 (134)
Electric	Dielectric Strength, 0.125"	kv/m	ASTM D-149	24
	Volume Resistivity, 40 hours @ 23°C, 50% RH	ohm-cm	ASTM D-257	6.00E+15
	Volume Resistivity, 96 hours @ 90°C, 50% RH	ohm-cm	ASTM D-257	3.00E+15
UL	Hot Wire Ignition (HWI), 1.62 mm	PLC	ASTM D-3874	3
	Hot Wire Ignition (HWI), 3.0 mm	PLC	ASTM D-3874	2
	High Current Arc Ignition (HAI), @ 23°C, 50% RH, 1.62 mm	PLC	UL 746A	0
	High Current Arc Ignition (HAI), @ 23°C, 50% RH	PLC	UL 746A	1
	High Voltage Arc Tracking (HVTR), 3.0 mm	PLC	UL 746A	3
	High Voltage, Low Current Arc Resistance, 3.0mm	PLC	ASTM D-495	6
	Comparative Tracking Index (CTI), 3.0 mm	PLC	ASTM D-3638	2
	High Voltage Arc Resistance to Ignition, 1.6 mm	seconds	UL 746A	16
	RELATIVE THERMAL INDEX UL 746B			
Relative Thermal Index	Electrical			125
	Mechanical with impact			115
	Mechanical without impact			125
Flammability	Flammability All Colors	1.5 mm	UL94	V-0
	All Colors	3.0 mm	UL94	V-0
	Black, Gray, Beige Only	2.5 mm	UL94	5VA
	Limited Oxygen index	%	ASTM D-2863	37.6
	IEC GWFI	°C	IEC 695-2-1/2	960
	IEC GWIT	°C	IEC 695-2-1/2	775

PC-10FRNH (b)							
PC-10FR(b)(f1)							
PC-10GFR(b)(g)(f1)							
PCA-2201NHV (b), PCA-2201NH (b)							
<b>PC-10FRN-GY(V)(e)(f1)</b> Polycarbonate (PC), TRISTAR®, furnished as pellets							
Color	Min Thk (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str
GY	1.5	V-0	3	0	125	115	125
	2.5	V-0, 5VA	3	1	125	115	125
	3.0	V-0, 5VA	2	1	125	115	125
	3.8	V-0	-	-	125	115	125
Comparative Tracking Index (CTI)						2	
Dielectric Strength (kV/mm)						24	
High-Voltage Arc Tracking Rate (HVTR)						3	
Dimensional Stability (%)						0	
Inclined Plane Tracking (IPT)						-	
Volume Resistivity (10 <sup>x</sup> ohm-cm)						15	
High Volt, Low Current Arc Resis (D495)						6	

For more information, please visit:  
[AmcoPolymers.com](http://AmcoPolymers.com)