

TRISTAR® PC-10R-CL(15)

Polycarbonate

Polymer Technology and Services, LLC

Message:

TRISTAR®PC-10R-CL(15) is a polycarbonate (PC) product. It can be processed by injection molding and is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific. TRISTAR®The application areas of PC-10R-CL(15) include electrical/electronic applications and wire and cable.

- Features include:
- flame retardant/rated flame
 - Comply with REACH standard
 - ROHS certification
 - mold release agent
 - excellent release agent

General Information			
UL YellowCard	E155285-223925		
Additive	demoulding		
Features	Good demoulding performance		
Uses	Electrical/Electronic Applications		
	Communication Equipment		
Agency Ratings	EC 1907/2006 (REACH)		
RoHS Compliance	RoHS compliance		
Appearance	Clear/transparent		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	15	g/10 min	ASTM D1238
Water Absorption (23°C, 24 hr)	0.15	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield, 3.17 mm)	62.1	MPa	ASTM D638
Tensile Elongation (Break, 3.17 mm)	150	%	ASTM D1708
Flexural Modulus (3.17 mm)	2410	MPa	ASTM D790
Flexural Strength (Yield, 3.17 mm)	96.5	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.17 mm)	850	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, not annealed	127	°C	ASTM D648
1.8 MPa, not annealed	137	°C	ISO 75-2/A

Linear thermal expansion coefficient			ASTM E831
Flow: -40 to 95°C	7.0E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 95°C	6.8E-5	cm/cm/°C	ASTM E831
RTI Elec	125	°C	UL 746
RTI Imp	115	°C	UL 746
RTI	125	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Arc Resistance	PLC 6		ASTM D495
Comparative Tracking Index (CTI)	PLC 2		UL 746
High Amp Arc Ignition (HAI)			UL 746
1.50 mm	PLC 0		UL 746
3.00 mm	PLC 1		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 3		UL 746
Hot-wire Ignition (HWI)			UL 746
1.50 mm	PLC 3		UL 746
3.00 mm	PLC 2		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.50 mm)	V-2		UL 94
Glow Wire Flammability Index	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature	775	°C	IEC 60695-2-13
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.586		ASTM D542
Transmittance ¹	89.0	%	ASTM D1003
Haze	1.0	%	ASTM D1003
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	3.0 - 4.0	hr	
Drying Time, Maximum	48	hr	
Suggested Shot Size	40 - 60	%	
Rear Temperature	249 - 271	°C	
Middle Temperature	260 - 271	°C	
Front Temperature	271 - 288	°C	
Nozzle Temperature	266 - 282	°C	
Processing (Melt) Temp	277 - 293	°C	
Mold Temperature	71.1 - 93.3	°C	
Injection Pressure	68.9 - 124	MPa	
Back Pressure	0.345 - 1.38	MPa	
Screw Speed	40 - 70	rpm	
Clamp Tonnage	2.8 - 6.9	kN/cm ²	
Injection instructions			
Injection Speed - Edge Gate: Slow to MediumInjection Speed - Tab Gate: Medium to FastInjection Speed - Tunnel Gate: Fast			
NOTE			

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