

TRISTAR® PC-10R-(VE)

Polycarbonate

Polymer Technology and Services, LLC

Message:

TRISTAR®PC-10R-(VE) 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®PC-10R-(VE) applications include electrical/electronic applications and wire and cable.

Features include:

flame retardant/rated flame

Comply with REACH standard

ROHS certification

Good UV resistance

mold release agent

General Information			
UL YellowCard	E155285-223925	E155285-102293244	
Additive	demoulding		
	UV stabilizer		
Features	Good UV resistance		
	Good demoulding performance		
Uses	Electrical/Electronic Applications		
	Communication Equipment		
Agency Ratings	EC 1907/2006 (REACH)		
RoHS Compliance	RoHS compliance		
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)	12	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)	120		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)	120	%	ASTM D1708
Flexural Modulus (3.17 mm)	2210	MPa	ASTM D790
Flexural Strength (Yield, 3.17 mm)	89.6	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.17 mm)	640	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method

Deflection Temperature Under Load			
1.8 MPa, not annealed	135	°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
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	254 - 274	°C	
Middle Temperature	266 - 277	°C	
Front Temperature	277 - 293	°C	
Nozzle Temperature	271 - 293	°C	
Processing (Melt) Temp	282 - 304	°C	
Mold Temperature	71.1 - 93.3	°C	
Injection Pressure	75.8 - 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

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

