

TRISTAR® PC-10FR-(18)

Polycarbonate

Polymer Technology and Services, LLC

Message:

TRISTAR® PC-10FR-(18) 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-10FR-(18) include electrical/electronic applications and wire and cable. Features include:
flame retardant/rated flame
Comply with REACH standard
ROHS certification
Flame Retardant
mold release agent

General Information			
UL YellowCard	E155285-223919		
Additive	demoulding		
	Flame retardancy		
Features	Good demoulding performance		
	Flame retardancy		
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	1.23	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	18	g/10 min	ASTM D1238
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)	75	%	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)	530	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			

1.8 MPa, not annealed	121	°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			UL 94
1.50 mm	V-1		UL 94
3.00 mm	V-0		UL 94
Glow Wire Flammability Index	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature	775	°C	IEC 60695-2-13
Oxygen Index	37	%	ASTM D2863
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	243 - 260	°C	
Middle Temperature	249 - 260	°C	
Front Temperature	260 - 271	°C	
Nozzle Temperature	254 - 271	°C	
Processing (Melt) Temp	260 - 282	°C	
Mold Temperature	71.1 - 93.3	°C	
Injection Pressure	51.7 - 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 Medium Injection Speed - Tab Gate: Medium to Fast Injection Speed - Tunnel Gate: Fast

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