TRINSEO™

PULSE™ EV91
Polycarbonate Resin

Overview

Trinseo PULSE™ EV91 is a non-halogen ignition resistant PC/ABS alloy. It combines the superior physical properties of PC and the excellent processability of ABS. Trinseo PULSE™ EV91 is designed with excellent flow for use in battery module. PULSE™ EV91 has a UL 94 V-0 rating at 1.4mm.

Applications: - Battery module top cover - Wire harness isolation plate - Cylindrical cell holder& bottom tray

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	1.18	g/cm³	1.18	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	19	g/10 min	19	g/10 min	ASTM D1238
Molding Shrinkage - Flow	4.0E-3 to 6.0E-3	in/in	0.40 to 0.60	%	ASTM D955
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus [1]	355000	psi	2450	MPa	ASTM D638
Tensile Strength [2]					ASTM D638
Yield	7980	psi	55.0	MPa	
Break	6240	psi	43.0	MPa	
Tensile Elongation [2]					ASTM D638
Yield	3.5	%	3.5	%	
Break	100	%	100	%	
Flexural Modulus	377000	psi	2600	MPa	ASTM D790
Flexural Strength	12800	psi	88.0	MPa	ASTM D790
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Notched Izod Impact (73°F (23°C))	14	ft·lb/in	750	J/m	ASTM D256
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Deflection Temperature Under Load					ASTM D648
264 psi (1.8 MPa), Unannealed	181	°F	83.0	°C	
Vicat Softening Temperature	216	°F	102	°C	ASTM D1525 [3]
RTI Elec [4]	140	°F	60.0	°C	UL 746B
RTI Imp [4]	140	°F	60.0	°C	UL 746B
RTI Str [4]	140	°F	60.0	°C	UL 746B
Electrical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Volume Resistivity	1.0E+11	ohms·cm	1.0E+11	ohms·cm	ASTM D257 IEC 60093
Dielectric Strength	660	V/mil	26	kV/mm	ASTM D149
Comparative Tracking Index (CTI)	PLC 0		PLC 0		UL 746A
Flammability	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Flame Rating [4]					UL 94
0.020 in (0.50 mm), All Colors	V-2		V-2		
--	• V-0 • 5VB		• V-0 • 5VB		
Glow Wire Flammability Index [4]					IEC 60695-2-12
0.06 in (1.5 mm)	1760	°F	960	°C	
Glow Wire Ignition Temperature [4]					IEC 60695-2-13
0.06 in (1.5 mm)	1380	°F	750	°C	

Injection	Nominal Value	(English)	Nominal Value	(SI)
Drying Temperature	176	°F	80	°C
Drying Time	3.0 to 4.0	hr	3.0 to 4.0	hr
Processing (Melt) Temp	374 to 455	°F	190 to 235	°C
Mold Temperature	140 to 176	°F	60 to 80	°C