

## PULSE™ EV90 E35 Advanced Resin

### Overview

PULSE™ EV90 E35 Advanced Resin is an ignition-resistance PC/ABS alloy containing 35% post consumer recycled (PCR) materials and no chlorinated or brominated flame retardant additives. This resin provides superior processability for molding thin-wall parts and optimizing cycle time productivity in injection molding operations. PULSE™ EV90 E35 has a UL94 V-0 rating at 1.5 mm.

Applications:

- Battery module top cover
- Wire harness isolation plate

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.17 g/cm <sup>3</sup>	1.17 g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	15 g/10 min	15 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 <sup>1</sup>	351000 psi	2420 MPa	ASTM D638
Tensile Strength <sup>2</sup>			ASTM D638
Yield	7980 psi	55.0 MPa	
Break	6670 psi	46.0 MPa	
Tensile Elongation <sup>2</sup>			ASTM D638
Yield	4.0 %	4.0 %	
Break	100 %	100 %	
Flexural Modulus	410000 psi	2830 MPa	ASTM D790
Flexural Strength	14100 psi	97.0 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	13 ft-lb/in	720 J/m	ASTM D256
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed	180 °F	82.0 °C	ASTM D648
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating <sup>3</sup> (0.06 in (1.5 mm))	V-0	V-0	UL 94
Oxygen Index <sup>3</sup>	29 %	29 %	ASTM D2863
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	176 to 194 °F	80 to 90 °C	
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr	
Processing (Melt) Temp	428 to 482 °F	220 to 250 °C	
Mold Temperature	140 to 176 °F	60 to 80 °C	