







Electric Vehicle Application Solutions Guide

Materials designed for flame retardance, strength, heat resistance, and chemical resistance.

Due to regulation and demands, the EV market is growing rapidly. Conventus Polymers provides the industry's highest performing polymers to support OEMs growing within this market space. Below are example solutions for common EV applications. All solutions are halogen free.

Application	Key Requirements	Solution	Product Description
 High Voltage Connectors	<ul style="list-style-type: none"> Temperature resistance (140°C, peak 180°C) High strength (lock/release forces) UL94 V-0 Flame Rating Halogen free CTI 600V 	Grivory PPA HTV-4X1	40% Glass fiber reinforced PPA with high strength and low water absorption. It is suitable for applications under voltage and high temperature exposure.
 Battery Cover	<ul style="list-style-type: none"> High Stiffness/Strength Chemical Resistance Dimensional Stability Laser Weldability Halogen free 	Vamplen PP 3028 V0 CB A	30% glass fiber filled PP with high mechanical properties and laser weldability.
 Electric Motor Components	<ul style="list-style-type: none"> UL94 V-0 Flame Rating High stiffness Chemical resistance Good electrical properties Halogen free 	Grilon PA66/6 TSG-30/4 V0	30% Glass fiber filled PA 66/6 copolymer. It is UL94 V-0 flame rated with a UL 746B RTI of 140°C.
 Body Control Unit Box	<ul style="list-style-type: none"> UL94 V-0 Flame Rating Dimensional Stability Low Warpage Halogen Free Snap Fit Flexibility 	Lupox PBT NH2156F	15% Glass fiber filled PBT with a halogen free UL94 V-0 flame rating. It also features high dimensional stability.
 EV Charging Station Housing	<ul style="list-style-type: none"> UL94 V-0, 5VA Flame rating Low Temperature Ductility UL746C f1 Halogen Free UL 746B RTI 130°C 	Duratough PCSi08FR4U	Polycarbonate-polysiloxane copolymer with low temperature ductility at -60°C, halogen free flame retardance, and f1 rated weatherability.
 EV Charging Plugs & Connectors	<ul style="list-style-type: none"> UL 746B RTI 130°C High Stiffness Chemical Resistance Dimensional Stability UL94 V-0 Flame Rating UL746C f1 Halogen Free 	Vampamid PA 66 2530 V0 P	25% Glass fiber reinforced PA 66. UL94 V-0 rated at 0.8mm.

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