



ITW Formex® is an Industry Leader in EV Power Insulation

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Contact: Jamie Li, Product Manager

ITW Formex® flame retardant (FR) insulation films are seeing wide adoption in Electric Vehicle (EV) power system applications around the world. Formex® GK-5BK (UL E121855) is the material of choice by global EV battery Tier 1 programs through industry leading manufacturers. Formex® understands EV power insulation safety needs and requirements as well as EV power engineering design considerations. Superior performance specifications make Formex® the ideal insulation solution for EV power system components including EV Battery Pack, EV Onboard Charger, EV DC/DC Converter, EV Power Electronics Controller, EV DC Charging Station, EV Battery Management System and PV Solar Power Inverter.

ITW Formex® uses the following guidelines to help EV power insulation design engineers deliver safety, reliability, durability, 3D design freedom, and cost efficiency.

Consider	Evaluate	Formex
Design concern with fire	Flame class	UL94 – V0 (self extinguishing < 30 sec)
Design concern with insulation material still meeting original electrical/mechanical design after 50% performance degradation	RTI	Up to 130c 7 years
Design concern with contamination impact on insulation performance	CTI	> 600 volts
Design concern with short circuit due to arcing risk	HAI	> 120 arcs
Design concern with moisture	Water absorption	0.06%
Design concern with chemical erosion	Material type	Polypropylene
Design concern with weight/space	Material thickness	As thin as 0.005"

For more information on Formex® applications, please visit our [website](#) or contact Jamie Li, Product Manager at jli@itwecs.com.

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