

REIMAGINING EV BATTERY AND EVSE DESIGN WITH ADVANCED THERMOPLASTICS

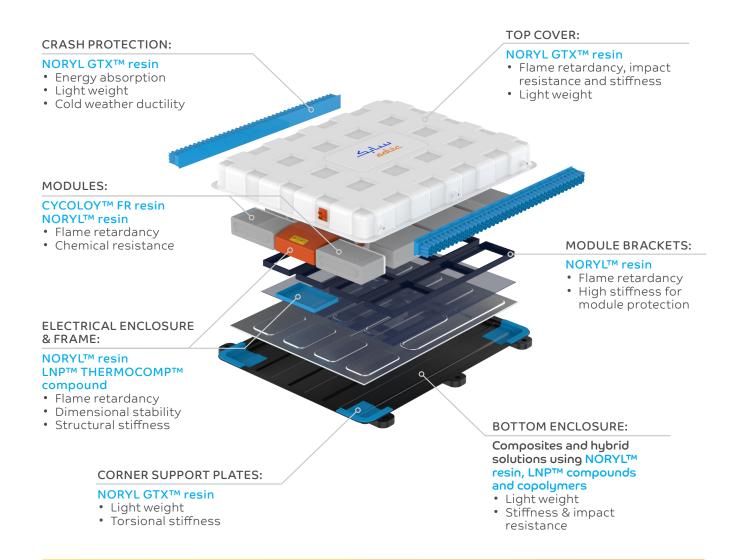
SABIC'S SPECIALTIES BUSINESS



REIMAGINING EV BATTERY & EVSE DESIGN WITH ADVANCED THERMOPLASTICS

Replacing metals and other traditional materials with advanced thermoplastics can help you optimize electric vehicle (EV) batteries and supply equipment (EVSE) by reducing weight and expanding design freedom. Thermoplastics also help you address industry requirements such as crash and impact resistance and fire safety, while streamlining manufacturing to control costs and increase productivity.

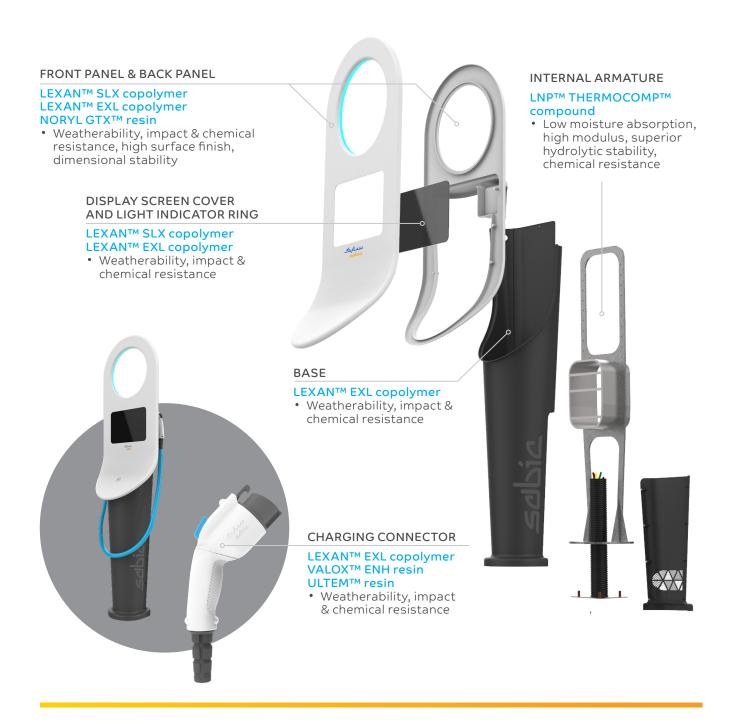
SABIC's Specialties business offers mechanically resilient, flame-retardant materials from our broad portfolio that can be used in covers and enclosures of EV battery modules and packs. We support our materials with value-added services, including design and predictive engineering capabilities, which are available for each step of your application development process.



EMPOWERING EV ADOPTION THROUGH EVSE MATERIAL SELECTION

Reliable charging stations and components for home and public use can help expand the EVSE network and promote consumer adoption of electric vehicles.

SABIC's specialty materials can provide excellent impact performance, weatherability and chemical resistance, helping EVSE manufacturers create safe, long-lasting supply equipment to support the expansion of the EVSE infrastructure. Design and predictive engineering capabilities are also available throughout your application development process.



NORYL™ resin

Modified PPE/HIPS

- Amorphous, reinforced & unreinforced, additives
- Good room temp. & low temp. impact strength
- Excellent hydrolytic stability
- · Low specific gravity
- Heat resistance to 149 °C
- Strong electrical and flame resistance properties

NORYL GTX™ resin

PPE/polyamide

- · Amorphous/crystalline blend, reinforced and unreinforced
- · Good chemical resistance
- Dimensional stability
- Heat resistance to 240 °C
- Excellent impact resistance
- Electrostatic painting & powder coating

LNP™ ELCRIN™ iQ resin

- Sustainability driven solution with potential to lower energy and reduce carbon footprint
- Recycled content certified by SCS Global
- Drop in solution to virgin products

LNP™ THERMOCOMP™ /THERMOTUF™ compound

- Dimensional accuracy
- High modulus & ductile
- Super structural
- Metal replacement
- NMT (nano molding technology)
- Tuneable dielectric solution (dk / df)
- Sustainability driven solutions

LEXAN™ EXL copolymer High impact PC/Siloxane

• Excellent low temperature impact resistance

- Weatherability
- Improved chemical resistance
- Excellent processability
- Impact resistance retention upon long term heat and humidity aging

LEXAN™ SLX copolymer

Weatherable PC

- Extreme weatherability—prolonged UV exposure (>10yr)
- · Cost reduction through paint-free, MIC
- Clarity: low haze, high light transmission
- Lower gloss loss and color shift
- High heat and impact resistance performance
- Higher flow SLX to enable thinner wall designs and benefits for cost savings

ULTEM™ resin

PFI

- High heat resistance to 221 °C
- Exceptional unfilled strength and stiffness
- Great isotropic dimensional stability
- Excellent UV, hydrolytic and chemical stability
- Near infrared transparency
- Robust electrical & dielectric properties
- Inherent flame retardancy / low smoke generation
- Outstanding optical properties
- Mirror like, direct vacuum metallization
- · Low outgassing, high haze onset temps

VALOX™ ENH resin

- Non-Br / non-Cl flame retardant solutions with UL V- rating
- Good chemical resistance
- Superior mechanical performance

CYCOLOY™ resin

- Non-halogenated FR PC/ABS resin blends based on EXL copolymer
- Excellent balance of toughness, processability, and heat resistance
- Thin wall flame retardant solutions (V-, 5VA, 5VB) grades) and custom colorable
- Improved weld-line strength vs. standard PC/ABS





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