MOBILITY

SABIC SOLUTIONS FOR MOBILITY

Evolving trends in the rapidly changing the mobility industry are creating demand for new solutions that advanced thermoplastics and polymers can provide. SABIC is one of the world's leading producers of these materials, with one of the broadest portfolios available to support the aesthetic, safety and performance requirements for mobility sector.

With the industry striving to make the shift to a new era of cleaner mobility, SABIC is collaborating across the value chain to deliver the next generation of thermoplastics. This includes drawing from our existing sets of proven polymers and specialty materials to breakthrough solutions developed under our BLUEHERO™ electrification initiative and our TRUCIRCLE™ portfolio of circular solutions.

We offer two primary product portfolios, each supported by expert technical teams globally.

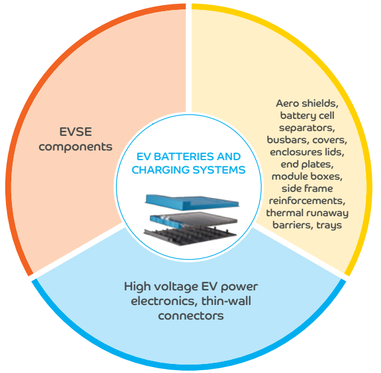
• Our range of polymer materials includes highly versatile engineering thermoplastic and polyolefin resins, which can meet a diverse set of performance requirements and make possible continuous improvements and breakthrough innovations. Branded product lines include CYCOLAC™ (ABS), CYCOLOY™ (PC/ABS), GELOY (ASA, PC/ASA), LEXAN™ (PC), VALOX™ (PBT), and XENOY™ (PC/PBT) resins; as well as HAPSOFT™ and SABIC® polypropylene compounds (PPc) and STAMAX™ (LGF-PP) resins. Additional materials include polyether polyols for foam production and a range of elastomer grades, including SABIC® polybutadiene (BR), EPDM and FORTIFY™ polyolefin elastomer (POE).

• Our highly differentiated specialty engineering thermoplastic resins, compounds, copolymers and additive manufacturing solutions focus on addressing highly complex and specific thermal, mechanical, optical and electrical performance requirements for demanding applications. The branded product lines include ULTEM™ (PEI) resins and films, LNP™ compounds and copolymers, NORYL™ (PPE) resins and EXTEM™ (TPI) resins.

Our industry-dedicated experts understand the pressures faced by automakers and suppliers. We work with them to develop the right solutions to meet their complex requirements and goals, address challenges across vehicle platforms and global markets and help them accelerate towards a sustainable zero-carbon future.

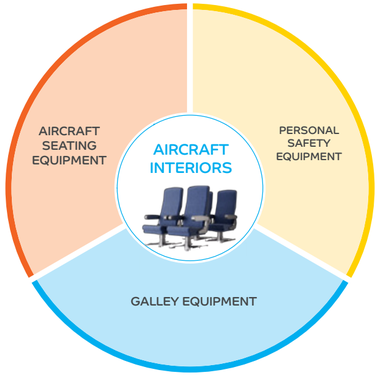
EV BATTERIES AND CHARGING SYSTEMS

- Aero shields, battery cell separators, busbars, covers, enclosures lids, end plates, module boxes, side frame reinforcements, thermal runaway barriers, trays
- High voltage EV power electronics, thin-wall connectors
- EVSE components



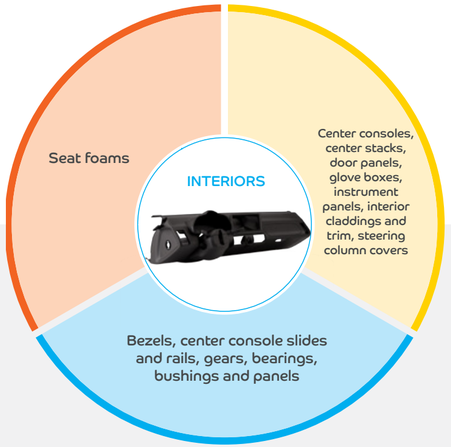
EXTERIORS

AIRCRAFT INTERIORS



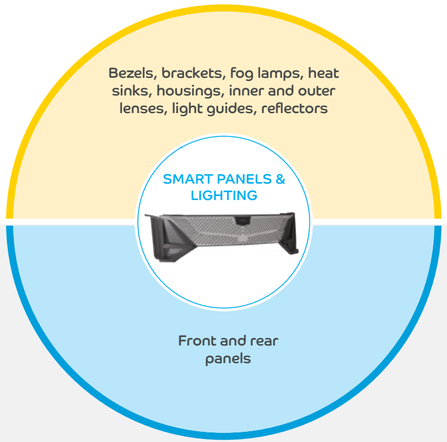
INTERIORS

- Center consoles, center stacks, door panels, glove boxes, instrument panels, interior claddings and trim, steering column covers
- Bezels, center console slides and rails, gears, bearings, bushings and panels
- Seat foams



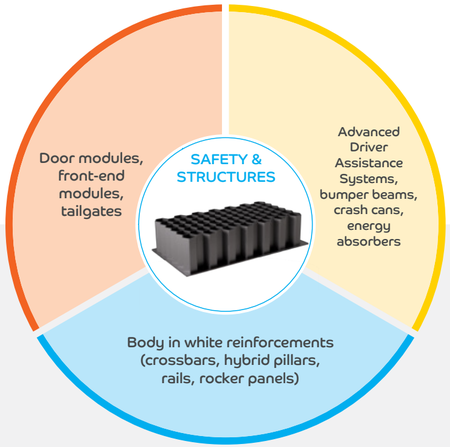
SMART PANELS & LIGHTING

- Bezels, brackets, fog lamps, heat sinks, housings, inner and outer lenses, light guides, reflectors
- Front and rear panels



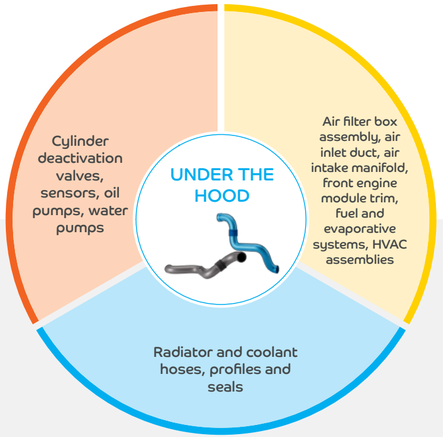
SAFETY & STRUCTURES

- Advanced Driver Assistance Systems, bumper beams, crash cans, energy absorbers
- Body in white reinforcements (crossbars, hybrid pillars, rails, rocker panels)
- Door modules, front-end modules, tailgates



UNDER THE HOOD

- Air filter box assembly, air inlet duct, air intake manifold, front engine module trim, fuel and evaporative systems, HVAC assemblies
- Radiator and coolant hoses, profiles and seals
- Cylinder deactivation valves, sensors, oil pumps, water pumps



Automotive Sensor Radar Absorber

LNP™ STAT-KON™ Compounds

SOLUTION SUMMARY

- Radar-absorbing to minimize signal loss
- Able to operate over a wide temperature range
- Good bonding properties with self and other materials while maintaining the critical dimensions
- Each part weighs <100 grams

VALUE PROPOSITION

- Radar abosrbing
- Good bonding properties
- Good Dimensional stability
- Wide temerature resistance

Thermal Conductive Solution for Automotive Lighting

LNP™ KONDUIT™ Resin

SOLUTION SUMMARY

- Light weight option for fuel savings in automotive
- Heat resistant with thermal conductivity for effective heat dissipation
- Can help to prolong LED life
- Each part weighs <100 grams

VALUE PROPOSITION

- Thermally conductive
- Light weight
- Design freedom
- Heat resistance

Lubricated Solution to Reduce Noise in Auto

LNP™ LUBRICOMP™ and LUBRILOY™ Compounds

SOLUTION SUMMARY

- Low wear, friction material helps reduce noise generated from parts that are not designed to move
- Dimensional stability and ease of molding many internal automotive parts
- Each part weighs <100 grams

VALUE PROPOSITION

- Low wear and friction
- Noise reduction (buzz, squeak, rattle)
- Easy processing
- Good dimensional stability

Visual effect solution for auto lighting bezel

LNP™ ELCRES™ Resins

SOLUTION SUMMARY

- Appealing metallic look without painting
- Able to maintain dimensions and good weathering properties to retain aesthetics
- Each part weighs ~200 grams

VALUE PROPOSITION

- Weatherability
- Good aesthetics
- Good Dimensional stability
- Easy processing

Electrically Active Compounds for Fuel Dispenser Frame

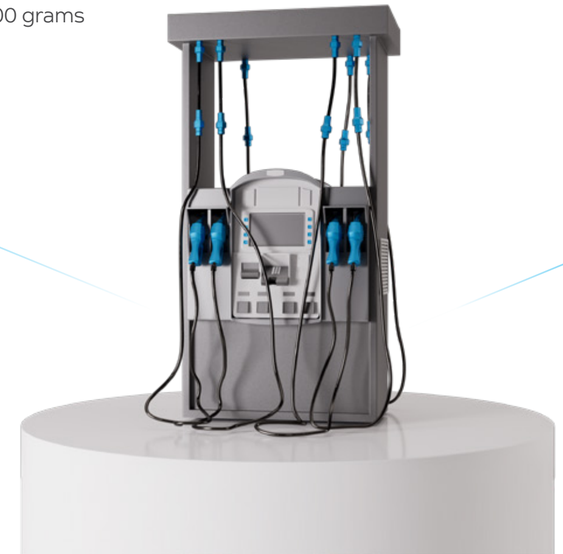
LNP™ STAT-KON™ Compounds

SOLUTION SUMMARY

- Although flame-retardant material is needed, electrical conductivity helps to prevent static electricity which can cause sparks and fires
- Chemical resistance to petrol also needed
- Each part weighs ~300 grams

VALUE PROPOSITION

- Electrically conductive
- High stiffness
- Flame retardant
- Chemical resistance



HEV Battery Auto Air Duct

NORYL™ Resins

SOLUTION SUMMARY

- Flame retardant material passed customer's flame exposure tests
- Chemical resistance needed for this application and easy processing allows molding of parts of long flow-path
- Each part weighs ~3kg

VALUE PROPOSITION

- Chemical resistance
- Heat resistance
- ECO flame retardant
- Easy processing

Auto Wheel Inserts

NORYL™ GTX Resins

SOLUTION SUMMARY

- Good balance of strength and heat properties
- These are key attributes for inserts to improve aerodynamics performance
- Each part weighs ~100 grams

VALUE PROPOSITION

- Impact resistance
- Heat resistance
- Dimensional stability
- Easy processing

Automotive Radar Cover

NORYL™ Resins

SOLUTION SUMMARY

- Good electrical properties to provide stable performance at high frequency range
- Maintains part dimensions and consistent performance during extreme environment
- Helps to maintain functional accuracy
- Each part weighs <100 grams

VALUE PROPOSITION

- Heat resistance
- Dimensional stability
- Easy processing
- Good Dielectric properties

EV Battery Module - Battery Disconnect Unit (BDU) Frame

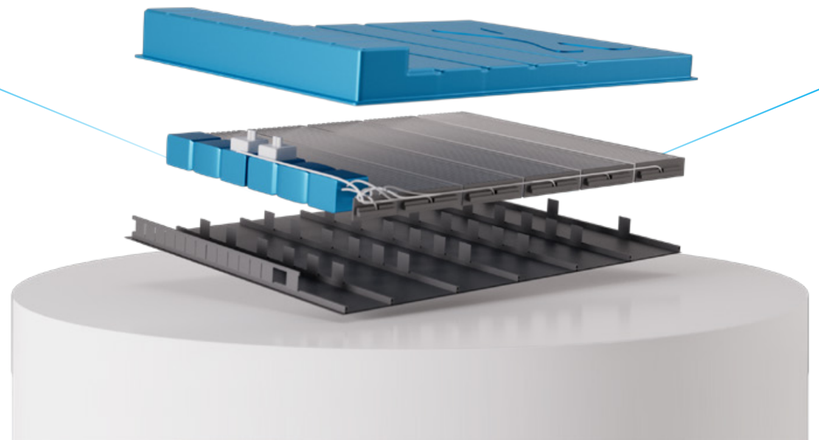
NORYL™ Resins

SOLUTION SUMMARY

- Provides dimensional stability and resistance to chemicals, impact and heat
- Flame retardant with a good balance of strength and flow
- Hydro stable
- Each part weighs ~ 300 grams

VALUE PROPOSITION

- Non-halogenated flame retardant
- Heat resistance
- Dimensional stability
- Low moisture absorption



Under-the-Hood Auto sensors

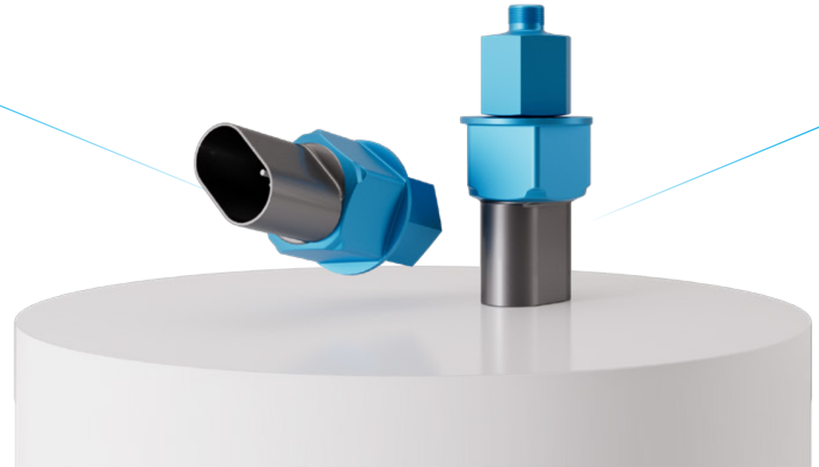
NORYL™ Resins

SOLUTION SUMMARY

- Mechanical strength, high temperature and chemical resistance for under-the-hood applications
- Stable dimensions for reliable performance
- Each part weighs <100 grams

VALUE PROPOSITION

- Heat resistance
- Chemical resistance
- High stiffness
- Dimensional stability



EV Charger Components

LNP™ ELCRES™ Resin

SOLUTION SUMMARY

- Good balance of resistance to impact, chemicals and flame
- Colorable, with good weatherability to maintain good aesthetics over prolonged use
- Each part weighs ~ 200 grams

VALUE PROPOSITION

- Low temperature impact resistance
- Non-halogenated flame retardant
- Weatherability
- Easy processing

High Heat Resistant Reflector of LED Automotive Lighting

LNP™ ELCRES™ Resins

SOLUTION SUMMARY

- Good balance of heat resistance and strength for LED exposure.
- Able to maintain robust performance and dimensions with metallization
- Each part weighs ~300 grams

VALUE PROPOSITION

- Heat resistance
- Impact resistance
- Dimensional stability
- Easy processing

Electrical Vehicle (EV) Battery Pack Cover

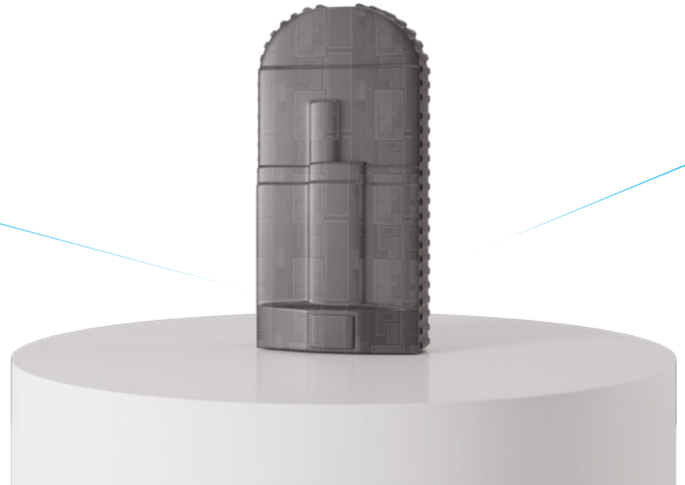
SABIC® PP Compound H1030

SOLUTION SUMMARY

- SABIC's flame-retardant (FR) polypropylene has been commercially approved for EV battery pack covers
- Enhanced safety features, lightweight properties, and excellent heat resistance
- Contributes to overall performance, reliability, and efficiency
- SABIC material share of this application is 100%
- Edison Silver award winner for 2022

VALUE PROPOSITION

- Range and efficiency
- 40% in weight reduction
- Lower Emission
- Improved safety



EV Battery Module Housing

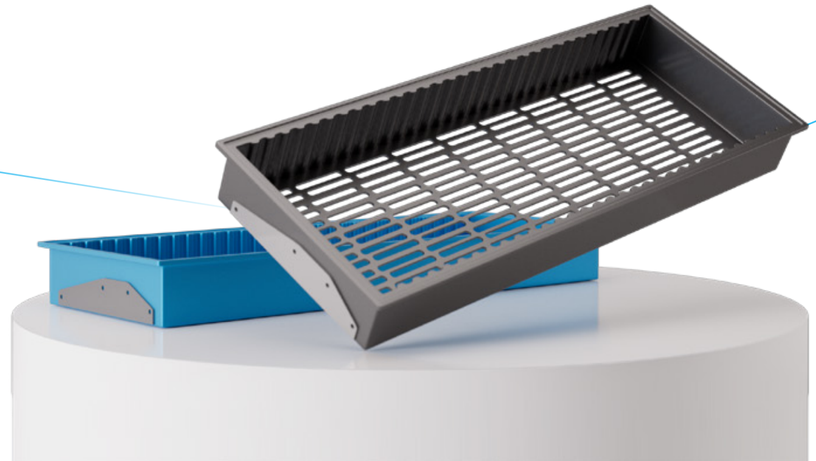
LEXAN™ FR ECR 3412 Resin

SOLUTION SUMMARY

- Approved by an EV brand for its battery module housings
- Offers improved durability, lightweight properties, and excellent thermal management
- Contributes to the overall efficiency and safety of EV battery systems
- SABIC material share of this application is 100%.

VALUE PROPOSITION

- Range and efficiency
- Weight reduction
- Reusability
- High impact



Outdoor Charger for Electrical Vehicle

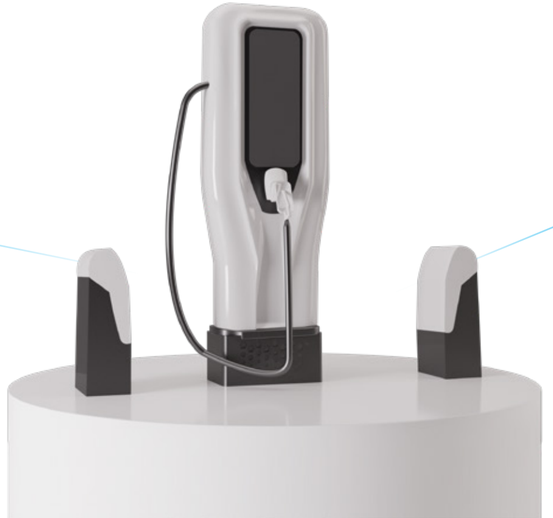
SABIC® PP AND ETP Solutions

SOLUTION SUMMARY

- Provide excellent electrical performance, heat resistance, and lightweight properties
- Contribute to the efficiency, reliability, and overall performance of electric vehicle charging systems
- SABIC material share of this application is 100%.

VALUE PROPOSITION

- Good electrical performance
- High Impact
- Flame Retardant
- Mechanical Performence



Tailgate Structure

STAMAX™ 30YM240 Resin

SOLUTION SUMMARY

- Offers excellent performance
- Offers high stiffness and impact that meet the market requirements
- Fulfills the demand for more sustainable materials to help reduce CO2 footprint and enable circularity
- SABIC material share of this application is 100%

VALUE PROPOSITION

- Light weight
- Functional integration
- High-impact strength
- Lower Emission

Front Panel

LEXAN™ LS1 Resin

SOLUTION SUMMARY

- Approved by an auotomotive brand for front panels
- Offers outstanding impact resistance, lightweight properties, and design flexibility
- Enhances aesthetics, safety, and fuel efficiency
- SABIC material share of this application is 100%
- Total weight is 2 kilograms per vehicle

VALUE PROPOSITION

- Integrated sensors
- Critical Performance
- Lower Emission
- Transparency & durability

Smart Panels

LEXAN™ LS1 Resin

SOLUTION SUMMARY

- Used for the production of vehicle smart panels
- Offers outstanding impact resistance, lightweight properties, and design flexibility
- Enhances aesthetics, safety, and fuel efficiency
- Total weight of this application is 15 kilogram per vehicle

VALUE PROPOSITION

- Pedestrian communication
- Integrated Smart Panel
- High-impact strength
- High aesthetic

LED Headlamp

LEXAN™ HF3510R Resin

SOLUTION SUMMARY

- Used for the production of LED vehicle headlamp
- Offers outstanding impact resistance, lightweight properties, and design flexibility
- Enhance aesthetics, safety, and fuel efficiency
- SABIC material share of this application is 100%

VALUE PROPOSITION

- Better yield performance
- Improved flow
- weight reduction
- High aesthetic

Flame Resistant Batteries Cover

SABIC® PP Compound H1030

SOLUTION SUMMARY

- Flame resistant, glass fiber-reinforced
- Used for the production of EV battery cases
- Offers superior strength, lightweight properties, and improved thermal management
- Contributes to enhanced safety, performance, and efficiency of EV battery systems
- SABIC material share of this application is 100%.

VALUE PROPOSITION

- Light weight
- Good chemical resistance

Rear Quarter Window

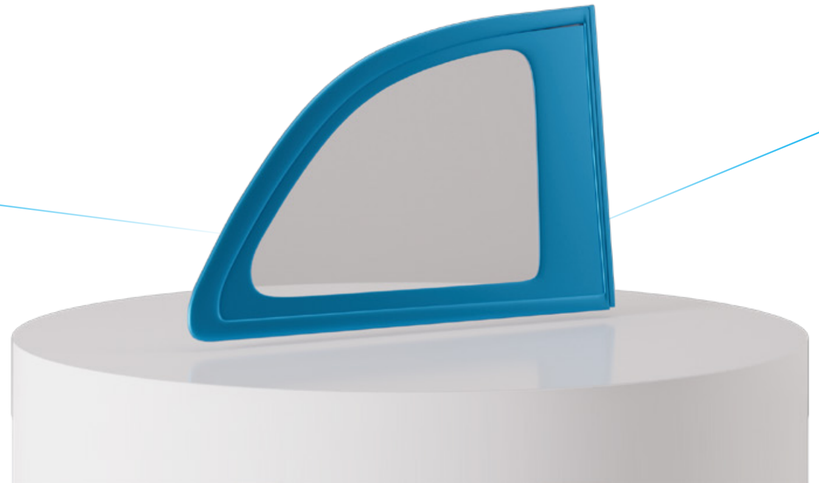
LEXAN™ GLX143 & CYCOLOY™ XCM 830 Resins

SOLUTION SUMMARY

- Used in the manufacturing of automobile rear quarter windows
- Provide exceptional clarity, impact resistance, and lightweight properties
- Enable improved aesthetics, safety, and fuel efficiency
- SABIC material share of this application is 100%
- Total weight of this application is 4 kilograms per vehicle

VALUE PROPOSITION

- Design freedom
- Thermal insulation
- 40% weight saving
- Low fogging



Battery Protection

XENOY™ HTX 950 and VALOX™ Resins

SOLUTION SUMMARY

- Used for the production of automobile battery protection components
- Offers excellent impact resistance, durability, and thermal management properties
- SABIC material share of this application is 100%

VALUE PROPOSITION

- E-coat capable
- Part integration
- Weight savings
- Energy absorption during crash

Automotive Semistructural Applications

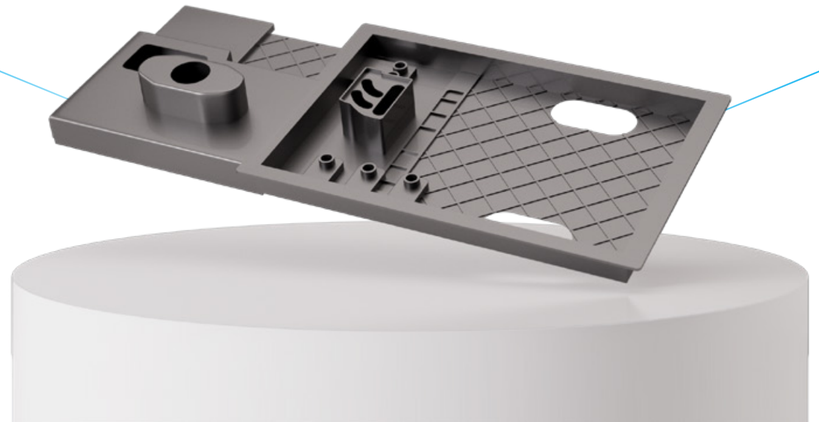
SABIC® PP Compounds G3430X & G3440X

SOLUTION SUMMARY

- Surpass high-performing standard short-glass fiber materials in melt flow, tensile and flexural strength, and flexural modulus
- Can be used to design parts with lower mass and weight
- SABIC material share of this application is 100%

VALUE PROPOSITION

- Range and efficiency
- weight reduction
- Lower Emission
- Improved safety



Instrument Panel Carrier

STAMAX™ Resin 20YK270E

SOLUTION SUMMARY

- Long glass fiber reinforced polypropylene material
- Excellent strength, stiffness, and impact resistance
- Offers exceptional mold ability
- Provides lightweight solution
- Contribute to improved vehicle efficiency
- SABIC material share of this application is 100%

VALUE PROPOSITION

- Design Freedom
- weight reduction
- Functional integration

Automotive Battery Case

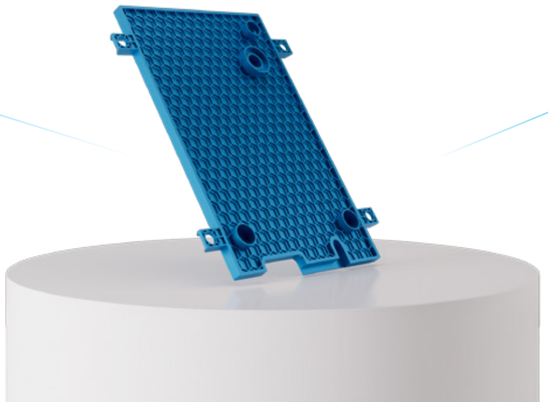
SABIC® PP Compound G3230A

SOLUTION SUMMARY

- High heat resistance and good dimension stability
- Used as a solution for electric vehicle battery case
- Contributes to weight reduction and high safety standards
- Total weight of this application is 1.8 kilogram per vehicle

VALUE PROPOSITION

- Range and efficiency
- Lower Emission
- Improved safety



Vehicle Heating, Ventilation,and Air Conditioning (HVAC) Interior Part

SABIC® PP Compound 3320EH

SOLUTION SUMMARY

- Good mechanical properties for stiffness and ductility
- Used as a solution for vehicles interior part
- Contributes to weight reduction resulting in lower emission
- Maintains high safety standards
- SABIC material share of this application is 100%

VALUE PROPOSITION

- Range and efficiency
- Lower Emission
- Improved safety

Automotive Seats

SABIC® POLYOL 0434/1127/11321529 & SABIC® TDI 0380/ MDI 2031 Polyurethane

SOLUTION SUMMARY

- Mainly used for car seating applications
- Total weight of this application is 30 kilograms per vehicle

VALUE PROPOSITION

- Design freedom
- Light weight
- Easy processing
- Durability

Automotive Tires

SABIC® BR4610 Polybutadiene Rubber

SOLUTION SUMMARY

- Suitable for tire application in tire treads, sidewall and carcass components
- Excellent abrasion resistance, low rolling resistance and high resilience
- Offers higher mileage, lower heat build-up, reduced fuel consumption and lower CO2 emissions for tires
- The weight is 1 kilogram per passenger tire

VALUE PROPOSITION

- Excellent Wear resistance
- Low Rolling resistance
- Excellent Resilience and Flex-fatigue
- Good processability

Automotive Profiles and Seals

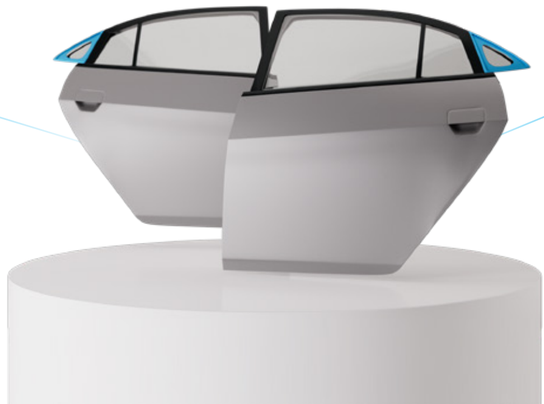
SABIC® EPDM756 Rubber

SOLUTION SUMMARY

- Provides excellent durability for auto weather seals and door profiles
- Good sound insulation property
- Useful for the auto sealing applications

VALUE PROPOSITION

- Excellent weather resistance
- High mechanical properties
- Reduced maintenance cost
- Good processability



Radiator/Coolant Hoses

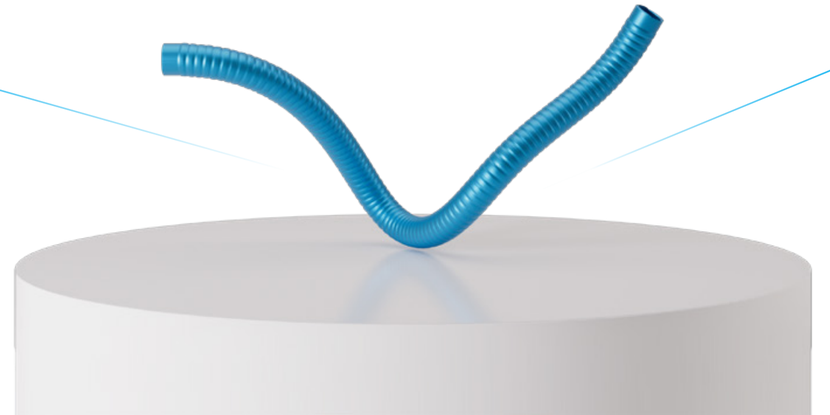
SABIC® EPDM855 Rubber

SOLUTION SUMMARY

- High heat resistance, good compression set properties, high durability
- Suitable for many extrusion applications, such as radiator/ coolant hoses, air hoses, pipe seals, auto profiles etc.

VALUE PROPOSITION

- Excellent heat resistance
- High mechanical properties
- Excellent durability
- Good processability



Tire Re-treading

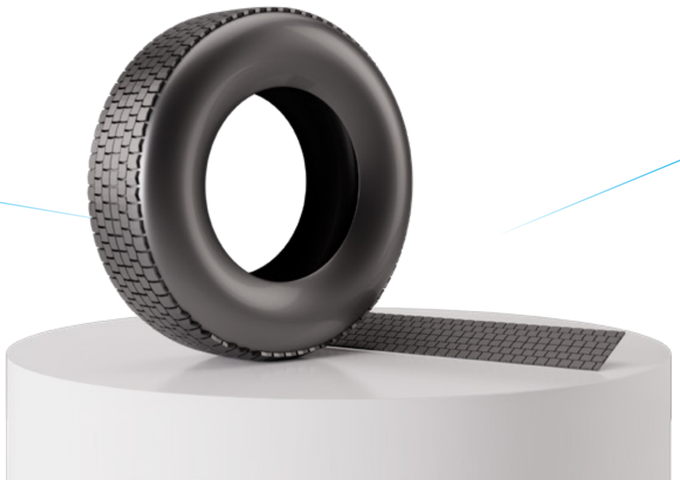
SABIC® Carbon Black N220

SOLUTION SUMMARY

- Can be used as reinforcing filler for tire re-tread application
- Provides excellent abrasion resistance and mechanical properties
- Higher durability and mileage for the tires

VALUE PROPOSITION

- Higher Abrasion resistance and mileage
- Better mechanical properties
- Lower Rolling Resistance
- Excellent cut resistance



Auto Tailgates

STAMAX™ 40 YM 240 Resin

SOLUTION SUMMARY

- A long glass fiber reinforced polypropylene material
- Excellent strength, stiffness, and impact resistance
- Ideal for manufacturing auto tailgates
- SABIC material share of this application is 100%

VALUE PROPOSITION

- Dimensional stability
- weight reduction
- Mechanical performance
- Cost saving

Luxury Impact Absorber

SABIC® PP Compound 8500

SOLUTION SUMMARY

- Has good paintability,excellent mechanical & impact properties
- Ease of processing, and low density
- Suitable for high class bumpers
- SABIC material share of this application is 100%

VALUE PROPOSITION

- Mechanical performance
- weight reduction
- Impact resistance
- Cost saving

Auto Lighting Reflective Mirror

ULTEM™ resins

SOLUTION SUMMARY

- Ability to electroplate very thin layer of silver for high reflective performance
- Can maintain critical dimensions and mechanical strength that has passed wide operating temperatures
- Each part weighs ~100 grams

VALUE PROPOSITION

- High strength
- Dimensional stability
- Good metallization capability
- Heat resistance

Automotive EV Pressure-Temperature Sensor Housing

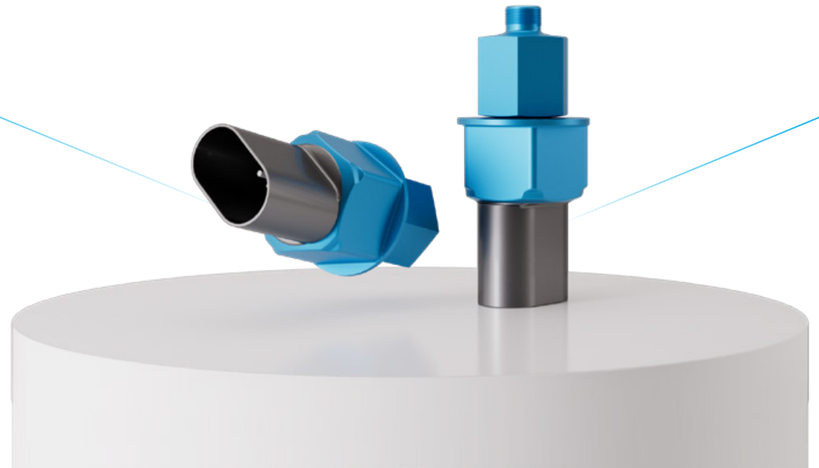
ULTEM™ Resins

SOLUTION SUMMARY

- Good chemical resistance to automotive coolant
- Low moisture absorption further improves dimensional stability which is critical for this application
- Each part weighs <100 grams

VALUE PROPOSITION

- Chemical resistance
- Dimensional stability
- Low moisture absorption
- Easy processing



Automotive Radar Lens

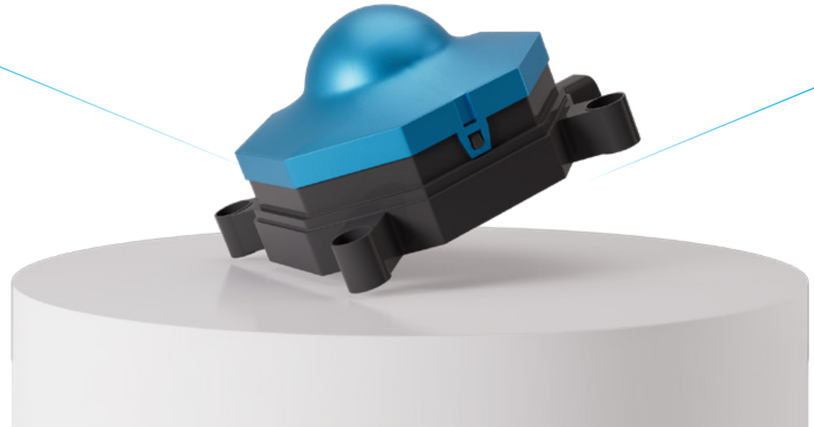
ULTEM™ Resins

SOLUTION SUMMARY

- High-gloss surface coupled with dimensional stability provides better signal quality
- Resistance to heat and automotive chemicals are added values to this lens application
- Each part weighs <100 grams

VALUE PROPOSITION

- Dimensional stability
  Chemical resistance
  Heat resistance
  Weatherability



Auto Cylinder Deactivation Valve (CDV)

ULTEM™ Resins

SOLUTION SUMMARY

- Stable dimensions over a broad temperature range
- Resistant to most automotive chemicals
- High strength needed for a valve application
- Each part weighs <100 grams

VALUE PROPOSITION

- Dimensional Stability
- Chemcial Resistance
- Long term reliability
- High stiffness

Automotive Parts

FORTIFY™ (POE) Elastomer C0570D

SOLUTION SUMMARY

- Available as free flowing pellets
- Designed as a low density and high performance copolymer modifier
- Provides superior impact properties and flow characteristics
- SABIC material share of this application is 100%

VALUE PROPOSITION

- Superior Impact
- Low temperature properties

Snowmobile EV Battery Shell

LNP™ ELCRES™ Resins

SOLUTION SUMMARY

- Low temperature impact and UV resistance for low to sub-zero operating temperatures outdoor
- Flame resistant
- High flow, can fill long parts
- Each part weighs ~200 grams

VALUE PROPOSITION

- Low temperature impact
- UV resistant
- High flow
- Flame retardant

EV Battery Covers

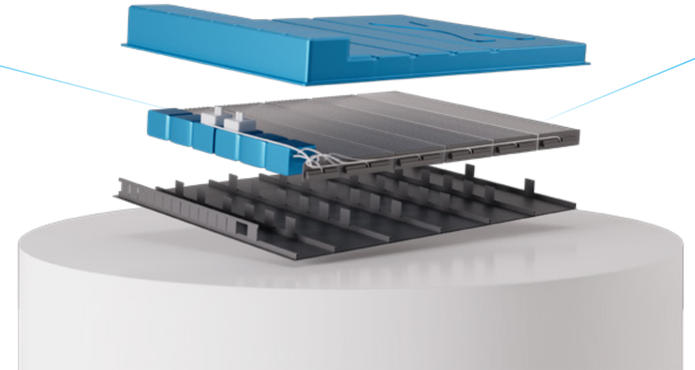
STAMAX™ 30 YH 570 Resin

SOLUTION SUMMARY

- A long glass fiber reinforced polypropylene material
- Excellent strength, stiffness, and impact resistance
- Ideal for manufacturing battery covers
- SABIC material share of this application is 100%

VALUE PROPOSITION

- Range and efficiency
- weight reduction
- Compliance with RoHS
- Flame retardant



Auto Interior Panel Carriers

STAMAX™ 20 YK 270EE & 20 YK 270E Resins

SOLUTION SUMMARY

- A long glass fiber reinforced polypropylene material
- Excellent strength, stiffness, and impact resistance
- Ideal for manufacturing auto IP carriers
- SABIC material share of this application is 100%

VALUE PROPOSITION

- Dimensional stability
- Weight reduction
- Impact resistance
- Cost saving

LNP™ Compound solutions for structural aircraft components for aircraft seats

LNP™ Thermocomp™ compounds

SOLUTION SUMMARY

- Offering great stiffness & strength
- Performance at High Temperatures
- Well suited to meet Aircraft Weight Reductions Targets
- Excellent Mechanical Performance

VALUE PROPOSITION

- High Modulus
- Creep Resistance at High Temperatures
- Carbon and Glass Filled Compounds
- Dimensional Stability

ULTEM™ solution for Aircraft Personal Service Unit

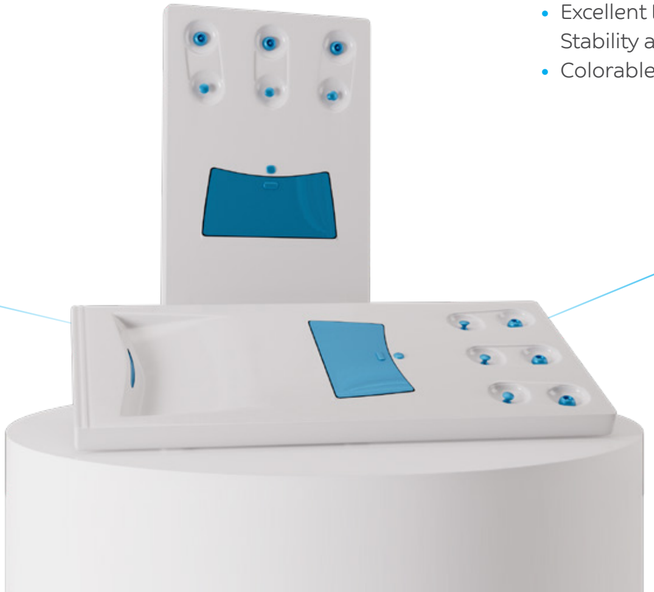
ULTEM™ resin

SOLUTION SUMMARY

- Meets Aircraft Regulatory and Safety Requirements
- Well Suited for Thin Wall and light weight designs
- Excellent mechanical performance
- Good Aesthetics

VALUE PROPOSITION

- Meets Aircraft Safety Requirements of OSU 65/65
- Excellent processability for thinwall applications
- Excellent Dimensional Stability and High Modulus
- Colorable



EXTEM™ solution for aerospace connectors

EXTEM™ resin

SOLUTION SUMMARY

- Performance at high heat and flame conditions
- Repeatable Mechanical Performance
- Durabilty, Strength and Stiffnes

VALUE PROPOSITION

- Creep Resitance at High temperature
- Robust Dimensional Stability
- High Modulus

ULTEM™ Resins for Aircraft Decompresion Grills

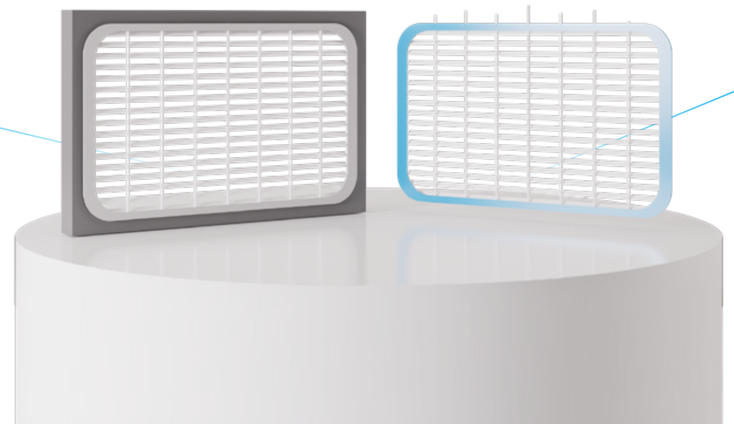
ULTEM™ Resins

SOLUTION SUMMARY

- Meets Aircraft Regulatory and Safety Requirements
- Well Suited for Thin Wall and light weight designs
- Excellent mechanical performance
- Good Aesthetics

VALUE PROPOSITION

- Meets Aircraft Safety Requirements of OSU 65/65
- Excellent processability for thinwall applications
- Excellent Dimensional Stability and High Modulus
- Colorable



ULTEM™ Resins for Aircraft Galley

ULTEM™ resin

SOLUTION SUMMARY

- Meets Aircraft Regulatory and Safety Requirements
- Well Suited for Thin Wall and light weight designs
- Excellent mechanical performance
- Good Aesthetics

VALUE PROPOSITION

- Meets Aircraft Safety Requirements of OSU 65/65
- Excellent processability for thinwall applications
- Excellent Dimensional Stability and High Modulus
- Colorable

LNP™ FST CoPolymers for Stow Bin Trim

LNP™FST CoPolymer

SOLUTION SUMMARY

- Meets Aircraft Regulatory and Safety Requirements
- Excellent Ductility
- Good Aesthetics
- Well Suited for thin wall and light weight design

VALUE PROPOSITION

- FAR 25.853 flame & smoke and OSU 65/65 grades
- Impact Resistance
- Excellent Colorability and Bright Whites
- Excellent processability for thinwall applications