

Maximized Function Through Form





Automotive Functional Solutions

With a long history of partnership and development with the top OEMs, automotive has been an integral industry for Mitsubishi Chemical Group. R&D and growth in high-performance materials and solutions for autonomous and electrified vehicles is at the core of our corporate strategy. Our focus is on partnering with our customers to develop and bringing to market lightweight, sustainable, high value, and functional solutions.

Mitsubishi Chemical Group offer an impressive portfolio ideal for demanding automotive applications such as carbon fiber, composites, high performance engineering plastics, films, and more. As a solution-driven partner, Mitsubishi Chemical brings together high performance materials, engineering processes and innovative design expertise to allow automotive engineers to develop highly innovative solutions with new levels of functional integration.

Partnership

From reimagining lightweighting structural applications that reduce fuel consumption to redesigning parts to reduce components and processes, our customer-centric approach ensures mutual success. With a focus on decreasing the environmental impact, we partner with customers to develop solutions to their most challenging problems.

KAITEKI | Our Philosophy

At Mitsubishi Chemical Group, sustainability is more than a concept—it's a way of life. Through our focus on improving the health and well-being of people and the planet, we create innovative sustainable solutions globally. The sustainable well-being of people and our planet Earth—we call it KAITEKI.

We believe our role in the chemical industry is to be partners in innovation, developing material solutions that support a circular economy and sustainability of the earth and society. This overarching KAITEKI Philosophy is our guiding principle as we use LESS to have MORE.

LESS RESOURCES | Our technologies extend the loop, conserving resources by transitioning to bio-based and recycled raw materials.

LESS WASTE | We extend raw materials by recycling our own waste and partnering with customers to recycle their waste.

LESS IMPACT | We decrease our impact on the environment through advanced resin innovation and developing lightweight materials.

MORE PRODUCT LIFE | Extending the material properties for extends the useful life of products.



Bio-Based



Recyclable



Recycled Materials



Light Weight



Process Elimination



Low VOC



Parts Consolidation

CF FMC
KyronMAX™
Electric Motors
Structural
Parts

METABLEN™
NOVADURAN™
TEFABLOC™
High-Voltage Wiring
Connectors
Cables
Harnesses

CF FMC
Large-scale
Suspension
Parts

Gelest™
Protective
Encapsulates
Protective Gels
Coatings

KyronMAX™
Suspension
Mounting
Brackets

CF FMC
KyronMAX™
KyronTEX™
Pyrofil™
Structural
Components

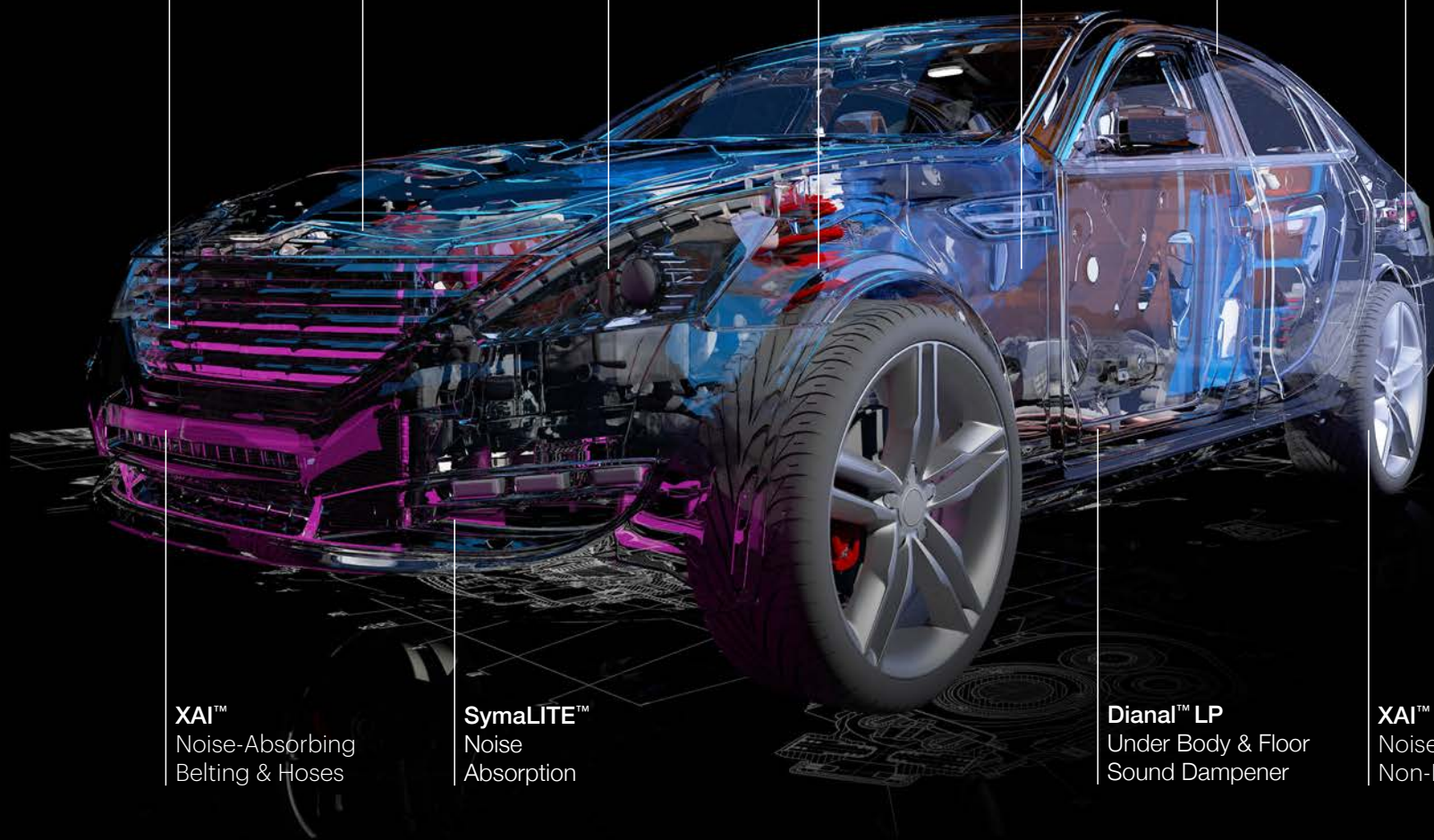
Qtex™
Fuel tank protection

XAI™
Noise-Absorbing
Belting & Hoses








SymaLITE™
Noise
Absorption

Dianal™ LP
Under Body & Floor
Sound Dampener

XAI™
Noise-Absorbing
Non-Metallic Tires



Functional Systems

Product	Description	Key Features							
CF-FMC	Carbon Fiber Forged Molding Compound	Lightweight CF-reinforced composite with strength and ease of molding				•	•		
Dianal LP™	Acrylic plastisol								
Gelest™ PP2-TC01/2	Thermally Conductive Adhesive	High thermal conductivity and elongation							
Gelest™ XG-3562/3/4	Dielectric Gels	Low viscosity, platinum addition cure							
KyronMAX™	Structural Thermoplastic Composites	World's strongest injection moldable thermoplastic		•		•	•		•
KyronTEX™	Prepreg					•			•
MAFTEC™	Alumina Fiber	Excellent thermal management and fire retardant				•			
METABLEN™	Plastic Additive	Additive modifiers that amplify material properties							
MODIC™	PVC Resin	Battery cooling lines and tubes							
NOVADURAN™		Excellent mechanical properties, rigidity, heat aging resistance and chemical resistance							
Pyrofil™	Carbon Fiber	Lightweight, excellent strength and stiffness				•			
Qtex™	Organo Sheet	Fuel tank protection							
SymaLITE™						•			
TEFABLOC™	Thermoplastic Elastomer (TPE)	Soft, flexible and multi-material compatibility							
XAI™	Ultra-fine Acrylic Fiber	Excellent sound absorbtion				•			

Innovation

Today, consumers demand more sustainable solutions, driving the need for technology development in materials, manufacturing, and end-of-life impact. As a vertically integrated manufacturer, Mitsubishi Chemical views material innovation through a sustainability lens, and develops custom solutions that address application challenges while also reducing negative environmental and social impacts.

Our sustainable materials support our customers in fulfilling their goals as well as the market demands by offering added value throughout the supply chain. Mitsubishi Chemical material technologies include offerings that:

- Enhance performance and functionality
- Offer state-of-the-art design
- Result in less waste at the end of life
- Optimize energy and resources
- Have less impact on the environment

Carbon Fiber | Fully Vertically Material Supply Chain

Mitsubishi Chemical Group is uniquely positioned to be able to provide a fully integrated material supply chain for Carbon Fiber - from raw materials to composites to molded parts.



Award-Winning Innovation | KyronMAX™ Roof Receivers

Mitsubishi Chemical Group, has developed a ground-breaking lightweight solution for the automotive industry. KyronMAX Roof Receivers are the first high-volume structural carbon fiber reinforced injection molded engineering thermoplastic composite in a weatherable structural body application.

Redefining lightweighting, the KyronMAX material solution was able to outperform the previous cast steel parts, slashing weight by approximately 80% and cutting material costs by 35%. In partnership with Stellantis, Mitsubishi Chemical Group proudly accepted the following awards:

2021 CAMX Unsurpassed Innovation Award

2021 Automotive News PACE Award

2021 Automotive News PACE Innovative Partnership Award

2021 SPE ACCE Award



Structural

Our composite materials make it possible to replace metal structural and semi-structural vehicle parts with lighter and safer components. Mitsubishi Chemical Group's reinforced thermoplastic composite materials display excellent material properties in rigidity, strength, dimensional stability, and crash performance, eliminating the need for steel reinforcement.

CF FMC | Large-scale production parts

Qtex | Fuel tank protection

KyronTEX | Structural panels

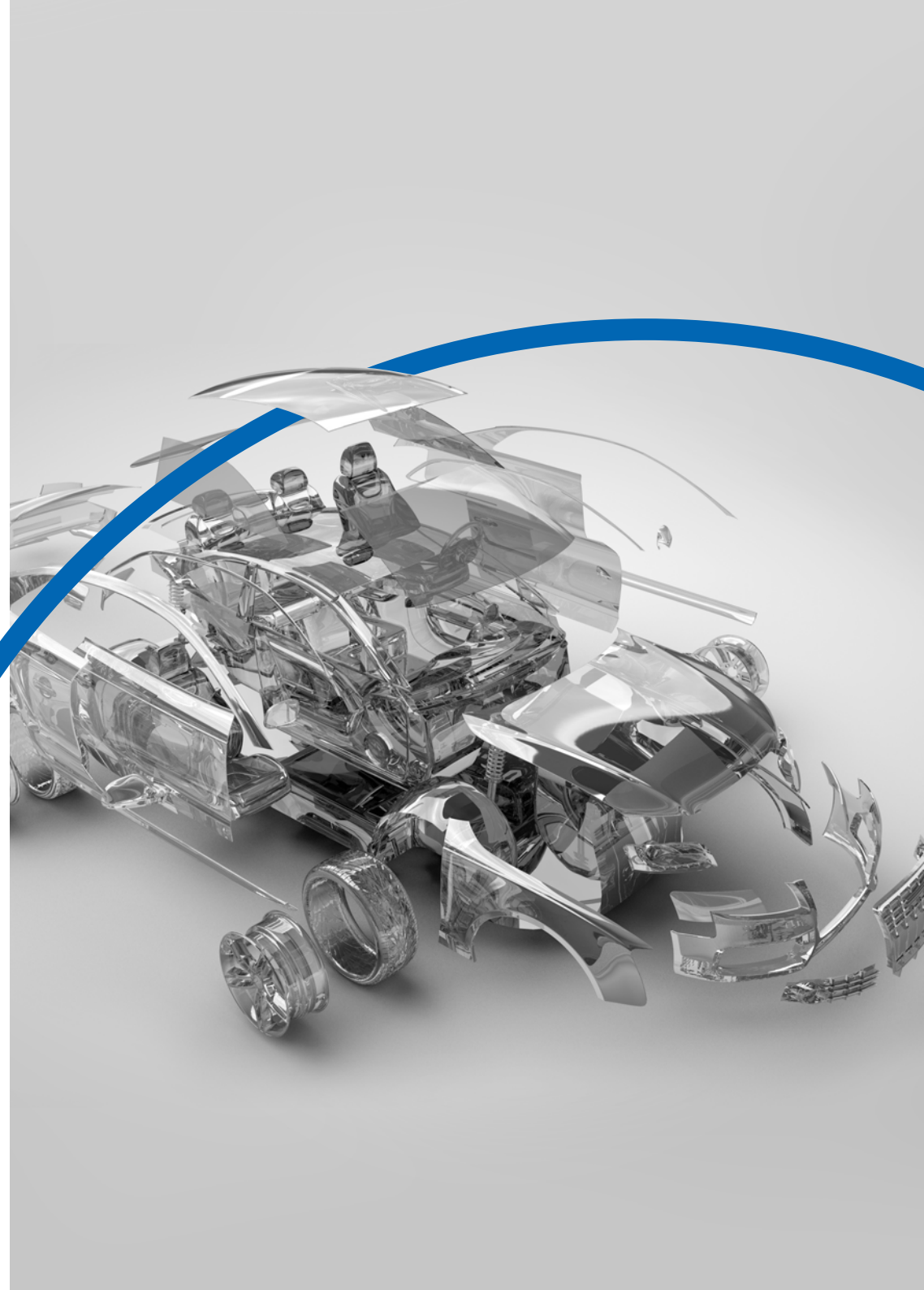
KyronMAX | Mounting brackets

Suspension

The materials and design of steering systems, shafts, spring pans and wishbone play an integral part in ensuring lifelong performance. Mitsubishi Chemical Group has developed innovative composite materials with excellent abrasion and stress resistance for challenging environments where anti-vibration and suspension systems must perform.

CF FMC | Large-scale production parts

KyronMAX | Mounting brackets





EV Electric Motors

The adoption of cleaner and more sustainable electric vehicles is on the rise. Mitsubishi Chemical Group has partnered with customers to develop high-quality materials for the EV space, including solutions specific to rotors and housings of electric motors. Our molding compounds and thermoplastic composites produce high-strength, lightweight structural components made to stand the test of time.

CF FMC | Structural components

KyronMAX | Structural components

Noise, Vibration, & Harshness

Just because the world around you is full of noise doesn't mean your vehicle has to be. Mitsubishi Chemical Group offers lightweight composites, resins, and acrylic fibers with excellent sound absorption and insulation. Our materials also met critical lubrication requirements for advanced automotive heating, ventilation, and air conditioning performance.

XAI | Belting, hose, machinery packing and
non-metallic tires

Dianal LP | Under-body and floor sound dampener

SymaLITE | Noise absorption

Electrical

Mitsubishi Chemical Group provides high-performance resins for electrical components to enable flexible, reliable, and safe systems. Within automotive applications, our additives can significantly increase the material durability and toughness, increase processability, and bolster other properties, such as matting effects.

METABLEN | Wire harnesses

NOVADURAN | Cables, connectors

Olefista FR Olefin | High voltage wiring & connectors

TEFABLOC TPE | High-voltage wiring jackets

Gelst Silicone Solutions | Protective encapsulates,
protective gels, coatings

NOVADURAN | Hydrothermal Aging Test

