Vehicles are an integral part of our lives, serving as both a necessary mode of transportation and a reflection of our individuality. They provide us with unique opportunities for exploration, enabling us to venture into new territories and expand our horizons. Beyond transportation, cars continuously transform industries, economies, and social dynamics, influencing the way we live, work, and interact with one another. Vehicles are a fundamental part of our existence, from commuting to work and running errands to embarking on memorable road trips, fostering independence, connectivity, and a sense of adventure.

As automotive industry technology evolves, we’re consistently innovating and improving the technology and materials used in vehicles and aftermarket parts to improve performance and utility. The benefits of using long fiber thermoplastic (LFT) composites in these automotive applications to achieve these objectives are well documented. Compared to metal, LFTs can reduce a vehicle’s weight by up to 40%, leading to significant fuel savings and emission reductions. These composites also offer superior corrosion resistance compared to traditional metals, providing longer service life and reduced maintenance costs, making them an excellent option for automotive applications. Furthermore, LFT composites are injection-moldable, providing a highly repeatable process that increases production efficiency and reduces scrap.

Our diverse range of advanced polymers and long fiber reinforced composites gives you the freedom to innovate, create high-strength components that eliminate unnecessary weight, and unleash fresh designs that offer superior performance while remaining economically viable to produce.
MANUFACTURING EASE
Injection moldable, design freedom, insert molding, part consolidation
SOLUTION: Long fiber reinforced composites
POSSIBILITIES: Seating shells, seat base components, tubular door frames, accessory linkages

DIMENSIONAL STABILITY
Tight tolerances, minimal warp
SOLUTION: Long fiber reinforced composites with polyketone (PK)
POSSIBILITIES: Roof rack structures, running boards, brackets, component housings

STRENGTH
High strength-to-weight ratio, comparable to metal
SOLUTION: Long fiber reinforced composites
POSSIBILITIES: Tubular door frames, accessory motor mounts, taillgate locking systems

SURFACE AESTHETICS
Color matches, fiber-rich or glossy surfaces, carbon fiber appearance
SOLUTION: Moisture-resistant long fiber reinforced composites
POSSIBILITIES: Lighting bars, side steps, bed steps, bike mounting brackets, cargo carriers

SUSTAINABILITY
PIR/PCR content incorporation with high strength, lightweighting for fuel economy
SOLUTION: Recycled content long fiber reinforced composites
POSSIBILITIES: Roof rack structures, fender flares, rail covers, tail light protectors

IMPACT RESISTANCE
Durable in rugged environments and uses
SOLUTION: Maximum toughness long fiber reinforced composites
POSSIBILITIES: Side steps, bed steps, roof racks, brackets, bed extenders, tie downs

LIGHTWEIGHTING
30–40% weight reduction when switching from metal
SOLUTION: Long carbon fiber reinforced composites
POSSIBILITIES: Motor mounts, seating components, accessory mounts

CORROSION RESISTANCE
Metal replacement, eliminate secondary coatings
SOLUTION: Long fiber reinforced composites
POSSIBILITIES: Tail light protectors, fender flares, guards, underbody components

NEXT-GEN UPGRADES
Transform your aftermarket parts with efficient, lightweight long fiber thermoplastic solutions that redefine performance with strength, toughness, and design freedom.
From style to performance, Avient has aftermarket manufacturers covered. Engineered polymer formulations are designed to perform in demanding environments. Our long fiber composites offer an excellent opportunity for automotive aftermarket designers to enhance their components’ performance, aesthetics, and sustainability. With the numerous benefits, including extreme performance, high impact resistance, high strength, UV performance, and more, designers can create components that meet their unique requirements while also contributing to a more sustainable future.

At Avient, we are committed to supporting you as you bring your next groundbreaking automotive aftermarket idea to fruition. Together, we can elevate the driving experience, surpass expectations, and shape the future of automotive aftermarket components.