

SEGMENT PROFILE

Automotive

Polyamide solutions for
automotive applications





Performance is our middle name

Ascend is the world's largest fully integrated producer of polyamide 66 resin. Not only do we sell PA66, PA6 and specialty polyamide resins, engineered and sustainable compounds into the automotive industry, we sell industrial polymer, fiber, and intermediate and specialty chemicals. Ascend products excel in a wide range of automotive applications, including cooling, thermal, structural and electrical systems, e-mobility, cable ties, tire cord, airbags, paints, coatings and more.

Application development and support

Our automotive applications team relies on years of industry experience, testing and computer-aided engineering support for tooling to help optimize system and part design. We work with our customers to achieve the very best from our products. That's why we offer a worldwide support network of application specialists and technical experts.

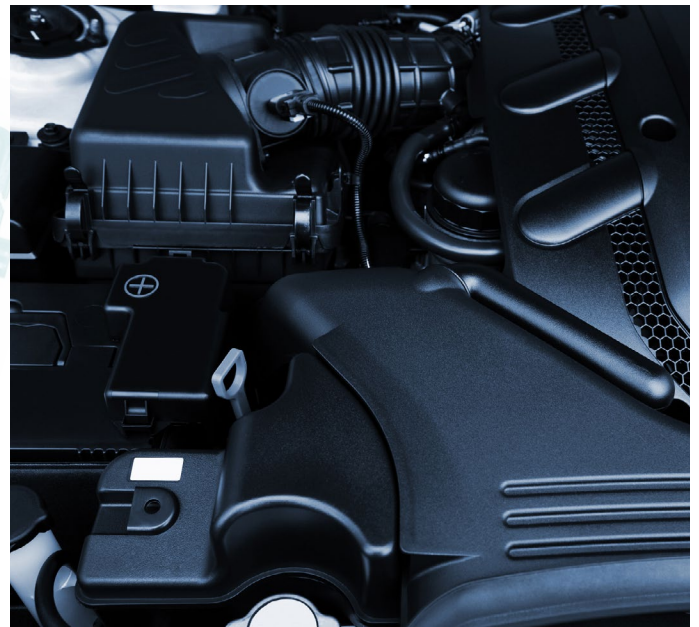
Boosting auto performance

Higher, more reliable performance with lower emissions is possible with the right partner. At Ascend, we couple high-performance materials with automotive application expertise to innovate solutions alongside our customers.

We have a proven track record of working with suppliers and automakers to bring better performance throughout the vehicle – from the exterior to under-the-hood applications.

Ascend's fully integrated production and global operations ensure the quality and consistency of material the automotive industry can rely on. Our extensive network of compounding and product development facilities deliver localized solutions for your customers on a consistent basis.

Our technical specialists partner with customers to engineer new applications that boost vehicle performance, improve passenger comfort and remove unnecessary weight from the vehicle.



Improving Engine Efficiency

Turbocharged engines require materials that can withstand higher operating temperatures and chemical exposure in smaller spaces. From best-in-class hydrolysis resistance to extreme temperature resistance, Vydene® PA66 helps ensure your application performs in the harshest environments.

- Charge air coolers and ducts
- Cylinder head covers
- Integrated air intake manifold

OEMs rely on our high-performance plastics to solve some of the toughest challenges.



Featured Solutions

Vydyne XHT Series	Extreme high-temperature grades capable of withstanding prolonged exposure to temperatures of 210C and 230C, making them ideal for turbocharger components.
Vydyne HT Grades	Provides high levels of resistance to material degradation after long-term heat exposure up to 190C.
Vydyne HR	Delivers best-in-class hydrolysis performance for demanding cooling system applications. With an organic heat stabilizer, Vydyne HR can also be used in applications requiring electrically neutral material.
Vydyne AVS Grades	Antivibration system PA66 grades designed with advanced fatigue and internal dampening properties to help reduce noise, vibration and harshness. Combined with part-specific anisotropic fatigue and viscoelastic data modeling, helps improve longterm NVH and safety performance.
Vydyne IM Grades	Offers greater toughness and flexibility to absorb energy, especially with our high modulus ductile grades, R433H and R435H. Used to reinforce downgauged steel and aluminum, providing similar protection without the weight.
Vydyne J Series	Electrically neutral and organically heat-stabilized PA66 grades with high dielectric strength and improved flow for easy molding are ideal for miniaturized and high-voltage applications requiring corrosion resistance.
Starflam Portfolio	Full portfolio of unreinforced and glass-filled flame-retardant PA66, PA6 and PA66,6 including best-in-class V0 rating down to 0.20 mm and RTI of 150C. Superior melt flow for intricate parts, good stiffness/impact balance, chemical resistance and superior thermal resistance.
HiDura LCPA	With their high dimensional stability and exceptional chemical resistance, polyamide 610 and 612 compounds and resins are designed for injection molding and extrusion applications where durability and exposure to chemicals are necessary.
ReDefyne	Full portfolio of low-carbon, certified circular polyamides with post-consumer recycled and pre-consumer materials specially formulated to provide reliable performance in demanding applications. Offered with up to 100% recycled PA66 or PA6.

Ascend offers a comprehensive portfolio of glass-filled and unfilled engineered plastics for challenging automotive applications. Learn more about our full product offering for automotive applications on ascendmaterials.com



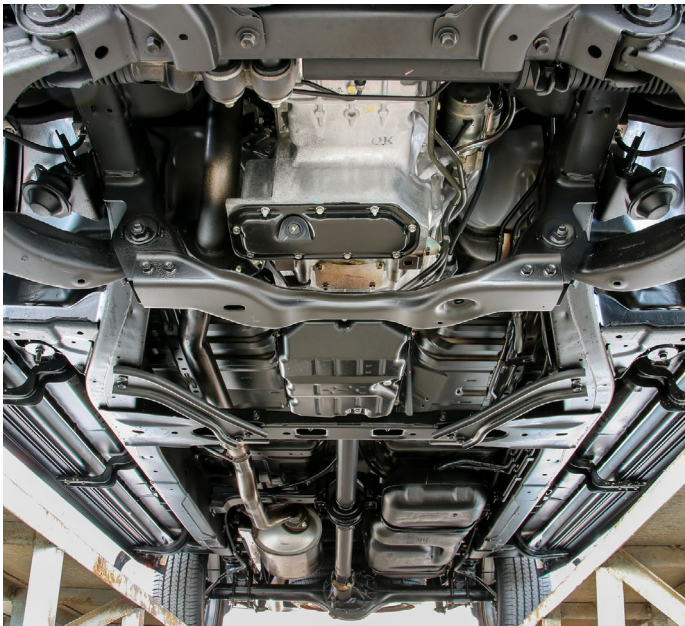
E-mobility

e-range

By 2025, hybrid and electric vehicles will make up one out of every three cars being driven. Ensuring those cars perform reliably and safely is a critical challenge that will require design ingenuity and the materials to support it. Our e-range solutions combine high-quality materials with technical knowledge to deliver best-in-class performance in power delivery systems, battery safety and range.

- Battery covers, frames and cages
- Battery management systems
- Electrical housings
- Airbag housings
- High-voltage switches and connectors
- Charging plugs and receptacles

[Read more about our e-range solutions.](#)



Lightweighting

Auto makers are being pulled in two directions. Consumers want better performance, more gadgets and greater comfort, while regulations require more fuel efficiency. The answer is lightweighting. Our engineered plastics offer high specific strength, temperature resistance and durability making them ideal materials for metal replacement –reducing part weight by up to two-thirds.

- Integrated part design
- Chassis and suspension components
- Oil pans and covers
- Transmission pans and covers



Comfort

Passengers expect more from their cars. From cutting- edge technology to quiet cabins, Vydyne PA66 ensures passengers enjoy their drive. We produce engineering plastics used to reduce engine and road noise for passengers while standing up to the rigors of daily driving with the highest safety standards.

- Engine mounts
- Electronic connectors and cable ties
- Body-in-white structural inserts

About Ascend

Ascend Performance Materials makes high-performance materials for everyday essentials and new technologies. Our focus is on improving quality of life and inspiring a better tomorrow through innovation. We make the plastics, fabrics, fibers and chemicals used to make safer vehicles, cleaner energy, better medical devices, smarter appliances and longer-lasting apparel and consumer goods. We are committed to safety, sustainability and the success of our customers and our communities.

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For more information, contact our expert applications specialists
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