



e-range

SEGMENT PROFILE

e-mobility

Polyamide solutions for battery electric and hybrid vehicles.



Ascend's e-range solutions will help you go farther in e-mobility with:

- Innovative materials solutions.
- Global manufacturing.
- Global technical expertise, CAE and applications development support.

Our innovative material solutions will help you design a safe power infrastructure, reliable thermal management systems and a secure and comfortable ride for passengers.

Our broad engineered plastics, functional fibers and specialty chemicals portfolio, combined with our global manufacturing, technical expertise and applications development support will help you go farther in e-mobility.

Safe Power Infrastructure

Ensuring the safety and reliability of EVs depends on transmitting electricity from the battery throughout the vehicle. From our flame-retardant Starflam® grades to the corrosion-resistant Vydine® J series, Ascend has the material to keep electricity flowing where it is intended.

- Electrical housings
- High-voltage connectors
- Cable guides and harness brackets
- High-voltage switches
- Manual service disconnect
- Charging plugs, receptacles and housings
- Battery management system
- Sensors

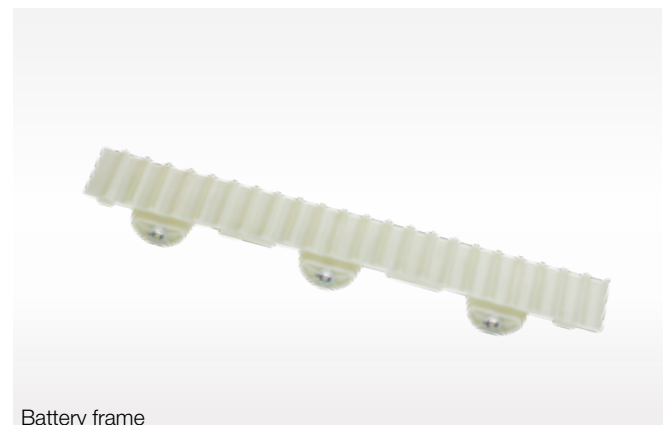


HV connector

Reliable Thermal Management

From driving to charging and back to driving, the thermal loads on an EV can be prolonged. Thermal management is critical to keeping the battery healthy longterm. Our Vydine and HiDura™ polyamides are designed for thousands of hours of heat and hydrolysis resistance.

- Cooling couplings, valves and pipes
- Coolant multi-way valves
- Coolant pump
- Fans and shrouds
- Radiator end tanks
- Auxiliary heaters
- Coolant multi-way valves



Battery frame

Secure and Comfortable Ride

Passengers expect to feel comfortable and protected. Vydine AVS and impact-modified products help reduce NVH through metal replacement and lessen noise and vibration, without sacrificing safety. And our new Acteev Protect™ nonwoven filtration media and fiber with antimicrobial technology protect filters and textiles from odor-causing bacteria and fungi.*

- Body-in-white structural inserts
- Motor mounts
- Integrated part design
- Air filters
- Upholstery
- Carpet
- Head liners



Motor mount

Material Solutions

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|--------------------|---|
| Starflam Portfolio | Full portfolio of non-halogenated and halogenated, unreinforced and glass-filled flame-retardant PA66, PA6 and PA66,6 grades, including best-in-class V0 rating down to 0.20 mm and RTI of 150C. Superior melt flow for intricate parts and good stiffness/impact balance, chemical resistance and superior thermal resistance. |
| Vydine 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. |
| Vydine HR | Delivers best-in-class hydrolysis performance for demanding cooling system applications. With an organic heat stabilizer, Vydine HR can also be used in applications requiring electrically neutral material. |
| Vydine 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, Vydine AVS helps improve longterm NVH and safety performance. |
| Vydine IM Grades | Offers greater toughness and flexibility to absorb energy, especially with our high modulus ductile PA66 grades, R433H and R435H. Used to reinforce downgauged steel and aluminum, providing similar protection without the weight. |
| HiDura LCPA | With high dimensional stability and exceptional chemical resistance, polyamide 610 and 612 compounds and resins designed for applications where durability and exposure to chemicals are necessary. |
| Trinohex Ultra | A unique, high-purity nitrile electrolyte additive that improves performance and extends the life of high-voltage lithium-ion batteries. Compatible across a broad variety of electrolyte and cathode chemistries, Trinohex Ultra helps protect the cathode and suppress electrolyte decomposition. |

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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Starflam®

HIDURA™



For more information, contact our expert applications specialists
or visit ascendmaterials.com.

*Acteev Protect does protect users from disease-causing bacteria.

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