Fact Sheet

DuPont Transportation & Industrial
Advanced mobility

High-performance mobility solutions

Megatrends are transforming transportation. Changing demographics, escalating urbanization, growing demand for mobility, and increasing disposable income are factors creating growing and sustainable global mobility demand.

Whether individual, shared or mass transportation, and from traditional internal combustion engines to hybrid and fully electric powertrains, and autonomous driving technologies, DuPont T&I is bringing both long-time expertise and fresh thinking to mobility's biggest challenges.

We are focusing on providing solutions in four key areas:

Lightweighting

Metal replacement is paramount to reducing fuel consumption for internal combustion vehicles and increasing driving range for hybrid and electric vehicles.

DuPont T&I solutions include innovative materials for:
- Engine covers (oil pans, variable cam timing covers, rocker covers)
- Battery module housings and assemblies
- Charge air cooling systems
- Interior structural elements
- Structural and composite bonding of lightweight components

Thermal management and safety

Higher-energy-density batteries and small, powerful e-motors with ultra-fast charging capability, create thermal management challenges. In addition to thermal/electrical safety, passenger and pedestrian safety standards require integration of active and passive safety systems.

DuPont T&I solutions include:
- Battery, hybrid, and internal combustion engine thermal management products and technologies
- High-voltage connectors, insulation materials, wires and cables, safety restraint systems
- Pedestrian safety sensors and controls
- Coolant tubes and connectors

Connectivity, sensing, and control

Accurate, upgradeable, and reliable data acquisition systems – supported by V2X connectivity and 5G – with electromechanical actuators, will dictate powertrain electrification acceptance and enable autonomous driving technologies.

DuPont T&I solutions include innovative materials for:
- ADAS-compatible materials and systems
- Sensors
- Actuators
- Gears

NVH and durability

Ride experience is more important than ever. IC vehicle owners expect a quieter interior. Hybrid and electric vehicles have quieter running engines, so further insulation against road noise is essential. Autonomous vehicles will become work and social environments – NVH performance will be crucial.

Life cycle expectations for vehicles – now and in the future – are increasing. This requires improvements in durability of chassis, electronic, and interior components.

DuPont T&I solutions include innovative materials for:
- Anti-vibration systems – supports, mounts, and brackets
- Low-squeak components
- Air ducts and resonators
- Structural and composite bonding and sealing

Introducing AHEAD™ Accelerating Hybrid-Electric Autonomous Driving

AHEAD
ACCELERATING HYBRID-ELECTRIC AUTONOMOUS DRIVING

To bring innovative and holistic solutions to this market, including autonomous driving, connectivity, and related infrastructure, DuPont has launched AHEAD™, a new initiative designed to bring customers solutions and material capabilities from across the new DuPont.

AHEAD™ uses our materials science and electronics expertise to provide a broad/differentiated portfolio of technology and solutions for the e-mobility market supported by our:

- EXPERIENCE: leveraging DuPont's expertise to create a singular and comprehensive offering of technology, and materials solutions in vehicle electrification, connectivity, autonomous-driving and related infrastructure
- MATERIALS SCIENCE AND R&D EXPERTISE: we can help develop the integrated materials solutions needed in this rapidly growing space
- HISTORY: DuPont has over 100 years of transportation industry experience, reinforced by our expertise and broad differentiated portfolio of technologies and solutions

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Form No. 001-20197-HMC0819