Application Study



Forward Lighting

inquiry

Automotive forward lighting is a critical component of auto design and serves numerous purposes to the vehicle operator as well as other drivers and pedestrians. The lighting must provide forward visibility at all times, during any condition. It must provide adequate peripheral illumination of possible off-road hazards, be bright enough to provide driver comfort without distracting oncoming traffic and be an attractive addition to the overall design. Traditional materials have had difficulties withstanding the demands of the road, including environmental impact.



Bulk Molding Compound Forward Lighting

idea

IDI Composite International's thermoset Bulk Molding Compound (BMC) has long been used as a material for companies looking to innovate and improve the design and complex geometries of forward lighting. These time tested materials exhibit high strength to weight ratios, as well as offering anti-fogging performance. Additionally, thermosets offer an excellent surface profile for basecoat adhesion and metalization while improving the overall aesthetics of the molded part. They are dimensionally stable, and maintain their shape during wide temperature fluctuations common in the coating process. In addition, BMC withstands the toughest moisture-rich environments, and is corrosion-resistant – imperative for forward lighting applications.

innovation

IDI's thermoset composites can be customized to meet special needs and the exacting tolerances and standards unique to every auto manufacturer. Our 3i Composites Technology Center can work with you to solve your engineering and performance challenges and develop a precise formulation to meet your exact specifications. With inherent dimensional stability, dielectric properties and UL rated materials, it's clear that our moldable BMC is a perfect option for forward lighting.

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DI Composites Technology Center

The IDI 3i Composites Technology Center is the research and development division of IDI. It will generate and prove new ideas, approaches and materials to address the engineering and performance challenges of both our customers and the industry. It will design, develop and manufacture thermoset composite compounds for innovative customers seeking to go beyond the value limitations of conventional materials.

IDI Composites International®

IDI Composites International (IDI) is the premier global custom formulator and manufacturer of thermoset molding compounds for molders and OEMs. The company provides customized polyester/vinylester-based bulk molding compounds (BMC), sheet molding compounds (SMC), and a new line of Structural Thermoset Composites (STC®) that are manufactured in both sheet and bulk formats for the most demanding applications.

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