Composites® International

IDEAS FOR MEANINGFUL RESULTS.

FORTIUM™

High Glass Fiber Composites

THE ART AND SCIENCE OF

THERMOSET COMPOSITES

COMPOSITE TRUCK BOX

Engineered for Strength.
Built for Performance.

STRONG
Built to withstand extreme conditions

LIGHTWEIGHT
Reuce weight, increase payload

UV STABLE
Resistant to UV and weathering

CASE STUDY

FORTIUM™
High Glass Fiber Composites

COMPOSITE TRUCK BOX

inquiry

Automotive designers and engineers are always looking for innovative solutions for product improvement, especially as it relates to strength, reducing weight, consolidating parts and cost savings. The truck box is a main selling feature of a pick-up and therefore must meet strict performance standards. This highly visible part needs to be extremely durable to support heavy loads and withstand corrosive substances, all while maintaining a high grade appearance, despite consistent use and relentless exposure to UV and other environmental elements. As it is one of the larger parts in a truck's design, it presents a significant opportunity to reduce weight, add durability and enhance the truck's appearance.

idea

Traditionally, truck boxes have been made from steel or aluminum because of their high load bearing capabilities. However, both materials scratch, dent, and corrode. With metals, maintaining a high grade appearance may require the costly installation of a secondary bed liner to absorb heavy loads and mitigate environmental factors. Composite materials are the replacement solution to traditional metals. With multiple dynamic performance features, composites are becoming the material of choice for innovative designers and engineers.

innovation

Using IDI's Fortium™ material (specifically F250-UV) results in a truck box that is inherently resistant to environmental elements. It is UV stable, rust and dent resistant, strong, and reduces weight, all while retaining a high grade appearance without the need of a bed liner. Depending on the design, composite materials can allow for the production of the truck box composed of one continuous piece or assembled from multiple pieces, resulting in overall part consolidation. The strength, performance and flexibility offered by IDI's Fortium™ composites make them an excellent material choice for innovative customers seeking to go beyond the value limitations of conventional materials.

Fortium Scratch Black Technology

Fortium™ is made with our Scratch Black technology. With Scratch Black, the color pigmentation is not just on the surface, but permeates the entire part. With traditional materials like aluminum and steel, this is not possible. The difference is clear in a product like a truck box which receives heavy use. As payloads rub against a traditional part, the resultant scratches are very apparent as they reveal the metal beneath. Because Fortium™ Scratch Black permeates the part, these scratches are much harder to detect resulting in an aesthetic part that maintains its beauty over time, even under the harshest conditions.

Standing Up To The Sun

Fortium™ is not just incredibly strong, but it is also able to weather the elements. Fortium™ F250-UV displays a very high UV stability based on numerous test methods and as a thermoset enjoys a natural resistance to corrosion and weather effects

Lower Density Than Traditional Materials

Because of its high glass fiber content, Fortium™ offers significant strength for such a low density material, while also imparting a very durable impact resistance to parts that are made from it. All of these features combine to make Fortium™ a clear choice for a strong, lightweight and durable part with long lasting aesthetic properties.

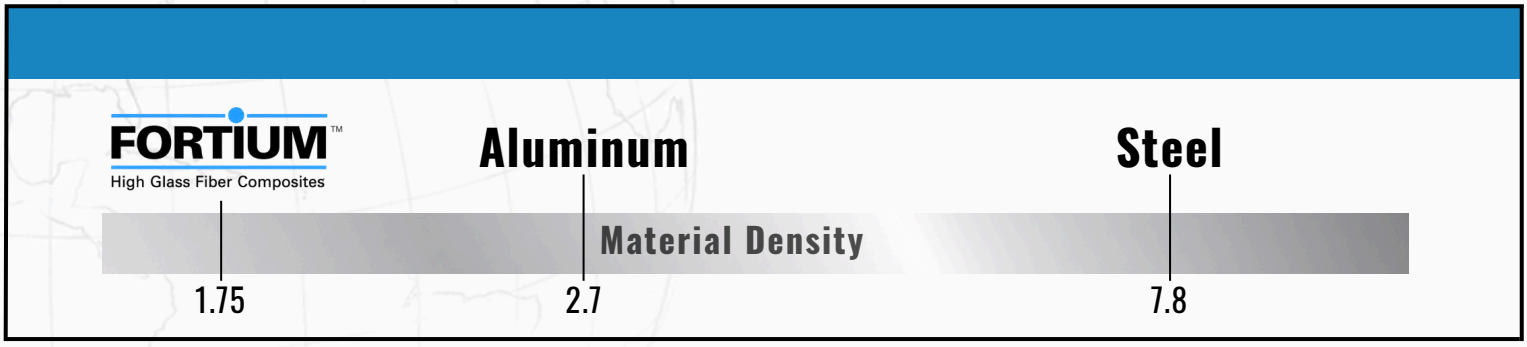
Fortium™ Scratch Black vs. Traditional Materials

Fortium™ Scratch Black

COLOR THROUGHOUT THE ENTIRE MATERIAL

Traditional Materials

COLOR PAINTED ONLY ON THE SURFACE



The need to extend the range of electric and new energy vehicles means more and more need for lightweight solutions. At 1.75 density, Fortium™ materials are far lighter than metal alternatives.