

# Case Study



## inquiry

Axios Mobile Assets Corp. offers a network of smart and connected assets (pallets, trailers and trucks) which provide a clear view into their clients' system. The rich set of real-time data they collect offers a clear interactive and historic view into their clients supply chain data that enables quick responses to ever-changing needs. Their pallets must be very strong to withstand the loads they may be required to carry over long periods of time while simultaneously meeting strict flammability standards. Wood was the material of choice for pallet construction, but it is prone to aging, has a tendency to warp in high humidity environments, and may not meet the flammability requirements of certain applications.

## idea

IDI Composites International and their 3i Composites Technology Center developed a proprietary Structural Thermoset Composite to make a stronger pallet, that is safer and more durable and lightest in its class. The conversion from wood to composites has allowed Axios to offer a pallet that is phytosanitary, absorbs minimal moisture, is free from mold and insect infestation, is easy to clean with water, is naturally fire retardant, has a very high strength-to-weight ratio, contains no nails, splinters or shards, has a non-slip surface, needs no repair, has a very low incidence of theft, creates revenue generation through carbon credits and carbon accrual and reduces carbon footprint. The pallets are also FM global certified and CFR Title 21 certified, allowing for indirect food contact.

## innovation

The IDI / Axios pallet is lighter, stronger, and has a longer use life than traditional pallets, and provides a secure way to embed the RFID chip integral to their superior tracking system right into the part. The superior pallet and Axios' system allows its users to track and prevent lost assets throughout the entire supply chain resulting in less shrinkage. All of this adds up to a lower cost of ownership, lower cost per trip due to lighter loads and lower fuel costs and a higher ROI for their customers.



**High Strength  
Thermoset Composite Pallet**

## **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 sheet molding compounds (SMC) and bulk molding compounds (BMC).

# Global Solutions – Global Locations



**North America**  
Noblesville, IN

**Europe**  
Vineuil, France

**United Kingdom**  
Oldbury, UK

**Asia/Pacific**  
Shanghai, China

**Caribbean & South America**  
Aguirre, Puerto Rico

**Mexico**  
Mexico City, Mexico