

Composites and Sustainability

Composite materials have many benefits in end-use applications including four that have special significance for the environment.

- **Lightweight** parts for automobiles and trucks are contributing to fuel savings while resisting corrosion and lasting longer
- The use of **durable** fiberglass-reinforced polymer (FRP) pipe for oil, water and sewage projects takes advantage of the non-corrosive properties of FRP
- The Silentex[®] muffler filling system is being adopted by leading car and truck manufacturers to help **quiet** their vehicles
- With various technical methods now available, the **recycling** of glass strand is possible in both thermoplastic and thermoset applications

Owens Corning has worked with its customers to analyze the **environmental impact** of their products and similar goods made with competitive materials. Composite materials fared well in these studies. The embodied energy and greenhouse gas (GHG) environmental burden for the raw materials mined and used in finished composite parts were consistently lower than their steel or aluminum equivalents. The studies also quantified reduced energy and greenhouse gases during the transportation of finished parts due to their significantly lighter weight.

The company's proprietary Advantex[®] glass formulation contributes to sustainability by increasing mechanical properties and corrosion resistance – compared to standard E glass – while also decreasing emissions and **reducing the environmental impact** of manufacturing fiberglass.

Owens Corning glass fiber veils for carpet, ceilings and flooring are the first in the glass non-woven industry to earn two rigorous **indoor air quality certifications** from the GREENGUARD Environmental Institute. These products – for new interior applications – are now GREENGUARD Indoor Air Quality Certified[®], along with being certified for the more stringent GREENGUARD Children & SchoolsSM product emissions standard.

Glass fiber reinforcements for **wind turbine blades** enable commercial generation electricity from a renewable resource. Owens Corning is the leading provider of materials for wind energy.