

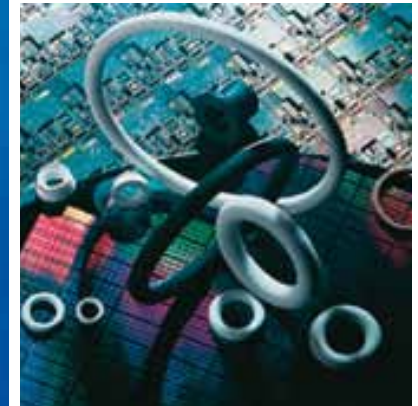


DuPont™ Zytel® Plus
Nylon Resin For Lighter And Smarter Vehicles

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DuPont™ Zytel® Plus Nylon Resin is a science driven, innovative, high-performance nylon and PPA material that delivers long-term resistance to heat, chemicals and pressure, enabling manufacturers to produce lighter, smarter and greener vehicles.



Issue

For the rapidly growing auto market of India, reducing weight and cost of the vehicle is critical to improve fuel economy and reduce dependency on fossil fuels. The industry is quickly adapting newer technologies like Turbo systems to boost the performance of smaller, more efficient engines. However, these power-boost technologies are challenging the capabilities of many existing engineering thermoplastics.

Challenge

To address these issues, automotive component and manufacturing units and suppliers needed solutions that improve sustainability, performance, safety, comfort and design, while reducing weight and enabling alternative-drive vehicle systems.

Solution

Apart from several new collaboration facilities, DuPont collaborated with Tata Toyo, a leading heat-exchange technology supplier based in Pune to introduce them to DuPont™ Zytel® Plus Nylon Resin.

DuPont™ Zytel® Plus Nylon Resin is a high-performance nylon and PPA material that delivers long-term resistance to heat, chemicals and pressure. Unlike specialty nylon resins, Zytel® Plus Nylon Resin retains processing ease typical of traditional nylon resins. This family is targeted primarily at automotive underhood and engine applications.

Tata Toyo, a valuable customer of DuPont Performance Polymers, quickly realized the opportunity to explore this innovative solution for better performance and cost. While collaborating, we found more opportunities to capture significant weight savings by replacing metal components and systems.

DuPont™ Zytel® Plus Nylon Resins was chosen for three hot- and cold-side charge air coolers on turbo-diesel engines powering four passenger, utility and light commercial vehicle models produced by a major Indian auto OEM.

Benefit

Since their invention by DuPont over 50 years ago, DuPont™ Zytel® Plus Nylon Resins have been the most widely used of all engineering plastics. They are tough, withstand repeated impact, and are highly resistant to abrasion and most chemicals. Molded articles retain their shape at elevated temperatures, are strong in thin sections, and have low coefficients of friction.

From automotive parts to protecting sensitive electronic components, the applications of DuPont™ Zytel® Plus Nylon Resins are as numerous as they are diverse.