

GE Plastics

Launches a New Family of ecomagination* Products

That Dramatically Cut CO2, Post-Consumer Waste & Petrochemical use.

Complementing Japan's environmental leadership in responsible automotive manufacturing, GE Plastics today celebrates two significant additions to its ecomagination* portfolio: Valox iQ* and Xenoy iQ* resins. The new products were developed as a result of a successful two-year initiative at GE Plastics that examined the company's manufacturing processes to redefine how its products can be made to be cleaner and more environmentally responsible than traditional materials. Valox iQ and Xenoy iQ resins are the essential elements of an environmentally progressive resin portfolio developed as part of GE's ecomagination initiative.

For global automotive manufacturers, including industry-leading Japanese OEMs, the new resins offer options to address three critical environmental concerns: conserving energy, lowering greenhouse gas emissions, and reducing post-consumer waste.

Valox iQ and Xenoy iQ resins offer excellent performance and are created with polybutylene terephthalate (PBT)-based polymers derived from 85 percent post-consumer plastic waste. They consume less energy and yield less carbon dioxide (CO2) in their manufacturing than traditional resins.

Specifically:

- This approach reduces CO2 emissions by at least 1.7 kg per kg of resin and saves up to 8.5 barrels of crude oil per 1,000 kg of resin.
- If all PBT was replaced in 2005 with the Valox iQ and Xenoy iQ resins, it would have created an outlet for over 562,000 metric tons/year of polyethylene terephthalate (PET) waste. This is equivalent to 22.5 billion bottles – enough to circle the earth 120 times if aligned end-to-end.

"In terms of both eco responsibility and high performance, Valox iQ and Xenoy iQ resins represent one of the most significant technological breakthroughs coming out of GE Plastics in recent years," said Greg Adams, vice president and general manager of GE Plastics' Automotive business. "So it just made sense to launch the products in a country known for championing environmental responsibility, as well as for automotive leadership. Of particular significance, the new products are immediately available to global automotive and non-automotive manufacturers."

The proprietary manufacturing process for these materials does not involve recycling, but rather, a novel way to regenerate and upgrade synthetic solid waste. The process also helps conserve non-renewable fuel resources while lowering CO2 released into the environment.

In demanding automotive applications such as connectors, lighting bezels, energy absorbers, and body panels, Valox iQ and Xenoy iQ resins give a competitive advantage by offering:

- Reduced CO2, post-consumer waste, and petrochemical use
- Reduced vehicle weight for greater fuel efficiency
- Chemical, thermal, and impact resistance
- Enhanced design freedom
- Parts consolidation

GE is working with leading global automotive OEMs and Tier-1 suppliers including DENSO, a Tier-1 automotive supplier headquartered in Kariya, Japan, to validate applications.

"If all PBT was made using GE's Valox iQ resin technology, it would represent an annual reduction of 1.4 million metric tons of CO2 emissions. This is equivalent to planting a forest 650 square kilometers in area, which is greater than the area of Tokyo," said Nicholas Eisenberger, managing principal of GreenOrder, an environmental strategy firm based in New York City, N.Y., that audited the GE Valox iQ resin claims.

Derived from 85 percent post-consumer plastic waste, Valox iQ resins are made with PBT-based polymers. Xenoy iQ resin is an alloy of polycarbonate (PC) and PBT-based polymers, also derived from 85 percent post-consumer plastic waste. In addition to automotive applications, the new GE products are good candidates for applications in the consumer electronics and transportation industries.

GE's Valox iQ and Xenoy iQ resins are available for sampling immediately through local GE sales representatives, and commercial quantities will be available from GE Plastics in the fourth quarter of 2006. Additional information on these products can be found at

What's Next

Other ecomagination products currently in development include a thermoplastic elastomer utilizing post-consumer waste, and a next-generation Valox iQ resin grade that will combine post-consumer-waste feedstock with a bio-based feedstock to eliminate additional carbon dioxide emissions and replace petroleum-based material.

For more information on these materials please contact:



GE Plastics is a global supplier of plastic resins widely used in automotive, healthcare, consumer electronics, transportation, performance packaging, building & construction, telecommunications, and optical media applications. The company manufactures and compounds polycarbonate, ABS, SAN, ASA, PPE, PC/ABS, PBT and PEI resins, as well as the LNP* line of high-performance specialty compounds. *Ecomagination, Xylex iQ, and Xenoy iQ are trademarks of General Electric Company.

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GE
Plastics

Smart Chemistry

Valox iQ™ Resin and Xenoy iQ™ Resin

High performing NEW materials – made with chemicals extracted from old plastic bottles.



imagination at work

