



DUPONT

Foundation

- 1802

Turnover

- 35.7 billion \$ (2013)

Employees

- Approx. 64,000 (2013)

Branches

- Performance Polymers
- Industrial Biosciences
- Packaging & Industrial Polymers

Key materials

- DuPont Bio-Sourced Material Solutions
- Bio-PDO™
- Sebacic acid

Key bio-based products

- DuPont™ Sorona® renewably sourced fiber
- DuPont™ Bynel® renewably sourced tie-layers
- DuPont™ Fusabond® renewably sourced polymer modifiers
- DuPont™ Hytrel RS renewably sourced thermoplastic elastomer
- DuPont™ Zytel RS renewably sourced long chain nylons
- DuPont™ Sorona EP renewably sourced thermoplastic polymer



The miracles of science™

Company

DuPont (NYSE: DD) has been bringing world-class science and engineering to the global marketplace in the form of innovative products, materials, and services since 1802. The company believes that by collaborating with customers, governments, NGOs, and thought leaders we can help find solutions to such global challenges as providing enough healthy food for people everywhere, decreasing dependence on fossil fuels, and protecting life and the environment. For additional information about DuPont and its commitment to inclusive innovation, please visit www.dupont.com.

DuPont provides its customers with innovative science solutions for multiple industries, among which polymers for injection molding, extrusion and blow molding technologies as well as expert application development assistance to enhance the performance, reduce the total system cost and optimize the sustainability of their products. Key market segments include: automotive, material handling, healthcare, energy, electrical/electronic components, hand held devices, appliances, sporting goods, food, cosmetics, medical products, industrial packaging industries, carpeting & apparel and other consumer products.

Products

Science meets Sustainability

DuPont has invested extensive scientific research and development to create next-generation bio-based polymers to help reduce the use of fossil fuels without reducing performance. By tapping innovative technology and strategic partnerships, DuPont has created novel methods of manufacturing high-performance materials from renewable resources. This new generation of materials, derived from biomass instead of petroleum, reduces the environmental footprint without compromising performance. The versatile offering includes several families of Sorona® renewably sourced fiber, Bynel® renewably sourced tie-layers, Fusabond® renewably sourced polymer modifiers, Hytrel® RS renewably sourced thermoplastic elastomer, Zytel® RS renewably sourced long chain nylon products and Sorona® EP renewably sourced thermoplastic polymer.

Sorona® renewably sourced fiber is one of the first high-performance fibers derived from rapidly renewable materials. Sorona® is a PTT or poly(trimethyl terephthalate). Based on the unique performance benefits of PTT, the U.S. FTC awarded a new fiber generic classification to PTT – triexta. It offers exceptional durability and stain resistance as well as the ability to blend with and enhance the performance of other natural and man-made fibers. Sorona® is used in residential and commercial carpets, apparel and automotive mats and carpets.

A leading biopolymer, Sorona® contains 37 percent annually renewable plant-based ingredients. Even better is its environmental footprint. Producing Sorona® uses 30 percent less energy and releases 63 percent fewer greenhouse gas emissions compared to the production of nylon 6. Compared to nylon 6,6 Sorona® production uses 40% less energy and reduces greenhouse gas emissions by 56%.





The miracles of science™

Bynel® renewably-sourced coextrudable tie-resins and Fusabond® renewably-sourced polymer modifiers are produced using "I'm Green™" Green Polyethylene from Braskem. They are based on sugarcane ethanol and have more than 80% renewable sourced carbon content. The products are designed to be drop-in replacements to the conventional alternatives and are either meeting or exceeding the performance of petroleum-derived products. Combined with DuPont know-how in design of multi-layer packaging structures and in formulation of polymer compounds, the materials are positioned to enable further penetration of bio-based polymers in more sophisticated structures.

Hytrel® RS renewably sourced thermoplastic polyester elastomer contains between 20% and 60% renewably sourced materials with all of the performance characteristics of traditional Hytrel®. Hytrel® RS thermoplastic elastomer bridges the gap between rubber and rigid plastics, and provides all of the performance characteristics of traditional Hytrel®, with reduced environmental impact because it is made using renewably sourced polyether glycols.

Zytel® RS renewably sourced long chain nylons, containing 63% to 100% renewably sourced content, comprises all products based on PA1010 and PA610, including their copolymers and their alloys with other polymers. The Zytel® RS product family is made with renewable content that comes from sebacic acid which is derived from castor oil. Castor oil is one of the most versatile, non-food competing natural products. Zytel® RS completes the range of typical flexible polyamides with additional advantages of superior chemical and hydrolysis resistance and very good temperature resistance.

Sorona® EP renewably sourced thermoplastic polymers are PTT polyesters with 20% to 37% renewably sourced materials (by weight). Sorona® EP thermoplastic polymers are PTT polyesters made with a renewably sourced propanediol (PDO) made from technical starch. Sorona® EP thermoplastic polymer starts with the basic Sorona® polymer chemistry and then uses a proprietary formulation technology to create high-performance engineering polymer resins.



Link to Agrobiobase



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