

DUPONT BUILDING INNOVATIONS ACHIEVES ZERO LANDFILL STATUS



Business Slashes Annual Waste from 81 Million Pounds to Zero

DuPont Building Innovations – one of 13 DuPont businesses – has become completely landfill free. Building Innovations began its journey to sustainability by rethinking the environmental impact of its manufacture of DuPont™ Corian® solid surfaces, DuPont™ Zodiaq® quartz surfaces, DuPont™ Tyvek® Weatherization Systems and geosynthetic textiles.

In 2009, the business set an ambitious goal of reducing its 81 million pounds of annual landfill waste to zero. By forming a team of Six Sigma experts and gaining the support of its employees, DuPont Building Innovations was determined to reduce its environmental footprint and, at the same time, give its customers something they wanted: a sustainable manufacturing solution. While landfill disposal in the past met all of the corporate, country and local requirements, there was a strong belief that the business could do better, particularly in view of the DuPont corporate commitment to the core value of sustainability.

DuPont Building Innovations achieved its ambitious goal of zero landfill in just three years and today remains committed to sustainable operations worldwide. By not just reducing landfill, but eliminating it, the business has set a new industry standard for environmental stewardship. Building Innovations has proven that with perseverance, imagination and a dedicated team, it is possible to achieve zero landfill.

Timothy P. McCann, president of DuPont Building Innovations, regards the Drive to Zero program as an initiative that is “good for our business, good for the environment and highly valued by our customers.”

DuPont Building Innovations prides itself on its commitment to ongoing zero landfill operations and will continue to look at additional ways to reduce and reuse its manufacturing byproducts. Further, going forward, the business will strive to ensure that new product introductions meet its landfill-free requirements.



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ISSUES:

- Reducing 81 million pounds of annual landfill waste to zero.
- Eliminating landfill from seven DuPont-owned locations and eight third-party partner sites with waste streams that included manufacturing byproducts, unusable raw materials, scrap, construction debris, and cafeteria waste.
- Reinforcing the mindset that although sending non-toxic waste to landfills may meet country, local and corporate requirements, there are better ways to handle manufacturing waste to significantly reduce the business's environmental footprint and create a sustainable manufacturing solution.

CHALLENGES:

- Reducing, reusing or recycling all waste and byproduct material generated from the manufacture of DuPont™ Corian® solid surfaces, DuPont™ Zodiaq® quartz surfaces, DuPont™ Tyvek® weatherization products and geosynthetic textiles.
- Collaborating with third-party manufacturing partners, and therefore taking on the management of waste streams from unrelated product production; this collaboration thus magnified the challenge of achieving zero landfill in just three years.
- Achieving the zero landfill goals of DuPont Building Innovations without impacting first-grade production or causing some other kind of unintended consequence, such as an employee injury or manufacturing delay.

SOLUTIONS:

- A special team used Six Sigma methodologies to rethink and re-engineer the management of waste streams and improve the way the business handled waste at the 15 global sites.
- Each location was thoroughly examined to understand exactly how much of each type of waste was generated; where it came from; why it was produced, and how material in each waste stream could be eliminated, reused or recycled.
- Sanding waste from the manufacture of DuPont™ Corian® solid surfaces and DuPont™ Zodiaq® quartz surfaces is used as a filler replacement in concrete.
- Ground-up scrap DuPont™ Corian® sheet material is used as recycled content in first-grade products -- such as the company's Terra Collection of Corian® solid surfaces that now contain up to 20 percent recycled content.
- Crushed scrap DuPont™ Corian® solid surface material is sold for use as road sub-base material and as landscape stone.
- DuPont™ Tyvek® wrap and flashing manufacturing trim is recycled into first-grade material.
- Shipping pallets are repaired, reused or ground into animal bedding.
- Carrier belt film is melted and used to make adhesives.
- Cafeteria waste is recycled into worm bedding or converted into energy.

BENEFITS:

- Today, all Building Innovations and partner sites that participated in the program are at zero landfill. Now, from the Yerkes site in Buffalo, N.Y., to Ulsan, Korea, from Guangzhou, China to Quebec, Canada and across the globe, Building Innovations shows its commitment to environmental stewardship through its zero landfill program.
- The Drive to Zero Landfill program achievements were accomplished with no capital expenditures.
- Through this project, Building Innovations has demonstrated clear leadership on sustainability to DuPont customers and stakeholders, government agencies, supply chain partners and competitors around the world.