

## Customer Success Story



## At BASF, multiple business units collaborate to meet Herman Miller's goals

**CUSTOMER:** Herman Miller, Zeeland, MI

**END-USE:** Award-winning office furniture, with inventive designs that enhance the places where people work, heal, learn and live.

**PRODUCTS:** Petra® PET and Elastofoam® Polyurethane Integral-Skin

**CHALLENGE:** Herman Miller is committed to creating environmentally sustainable, high-performance office furniture. They needed a material to address the use of PVC in the famous Aeron Office Chair arm pads. They needed a PVC-free arm pad that was capable of meeting the McDonough Braungart Design Chemistry (MBDC) Cradle-to-Cradle Design Protocol. Herman Miller has also set aggressive goals to meet Design for the Environment (DfE) targets which emphasize material chemistry and safety, product disassembly and recyclability of materials, and maximizing use of materials with recycled content.

**SOLUTION:** Having a strong relationship with BASF's Engineering Plastics business, the office furniture team was able to connect colleagues from BASF's Polyurethane businesses with Herman Miller's DfE program manager. This meeting led to the selection of BASF's Elastofoam® flexible polyurethane integral skin for the arm pad. Elastofoam® offers superior performance with processing and design flexibility.

**BENEFITS:** By utilizing BASF's Petra® PET, and Elastofoam®, Herman Miller was able to reach its goal and received Silver certified status on all Aeron chair production in February 2009. The chairs are already 94 percent recyclable and comprised of up to 64-percent recycled material. The seat frame and back contain over 60-percent recycled content, made from approximately 36 recycled two-liter plastic beverage bottles per chair. Petra thermoplastic polyester is based on 100% post-consumer and post-industrial polyethylene terephthalate (PET). The Petra family of injection molding resins offers a balance of engineering properties combined with high-temperature performance, chemical resistance, good electrical properties and ease of processing. Glass-reinforced, flame-retardant Petra thermoplastic polyester resins provide customers excellent stiffness and strength in complex and thin molded parts.

|   |                          |
|---|--------------------------|
| Ease of processing  | Chemical resistance      |
| Decorative surface finish   | High abrasion resistance |
| Elasticity even after continuous stress                           |                          |
| Excellent stiffness and strength in complex and thin molded parts |                          |

Elastofoam integral skin is a two-component polyurethane system that totally integrates soft polyurethane elastomeric skin and flexible foam in one single-step process. Elastofoam integral skin offers soft feel with complex surface design, high abrasion resistance, and elasticity retention after environmental exposure. Elastofoam is 100% solid, with solvent-free and plasticizer free. Elastofoam meets California Technical Bulletin 117, a stringent flammability regulation for furniture, without the use of halogenated flame retardants. Through the mold surface design, Elastofoam gives the freedom to branch out into an endless array of textures and grains. The added layer of water-based in-mold coating can be incorporated to provide UV-stability and multi-tone/color options. Elastofoam arm pads are created in one mold, with no secondary process. That means shorter cycle times, reduced labor costs, and improved productivity.

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We make a lot of the products you buy better.®**

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