



# international plastics design competition



## Embodiment® Chair



**Molder:** Cascade Engineering & ITW Dahti

**Material Supplier:** BASF Corporation

**Designer:** Jeff Weber & the late Bill Stumpf

**OEM:** Herman Miller, Inc



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## Supporting Documentation:

[Wiffle seat](#)

[Embody Chair](#)

## Product Description

Herman Miller, Inc., innovators of ergonomic, functional and environmentally friendly office seating, has created a new office chair with seat and back pixelated support technology, simulating the human spine. The technology automatically conforms to the body's micro-movements and distributes weight evenly. Office worker's well-being and health are improved with positive blood flow, lower resting heart rate, and improved comfort. One chair size fits every body by automatically adapting to the wide variation in people's size, shape, posture, and spinal curve. Additionally, the seat depth adjusts to different thigh lengths. The chair adheres to numerous strict environmental protocols and is 95% recyclable and has 42 percent recycled content, contains no PVCs and is admired by well recognized organization in the life cycle analysis methodology.

## Why is the product innovative?

Embody<sup>®</sup> chair, by Herman Miller, Inc., once again reinvents the reference for ergonomics by providing a chair designed to actually enhance your health. The fundamental innovation of the Embody chair is in the freedom of user movement. Traditional chairs restrict user movement, yet movement is critical to physical health and mental performance. Embody's design is based in extensive research, including studies of biomechanics, seating behaviors and postures, anthropometric data, metabolic measures, and tissue perfusion (the exchange of oxygen and carbon dioxide in body tissue). Working closely with cross-functional teams, and in consultation with leading figures in academia, healthcare, ergonomics, and material science, Embody restores balance to the human/computer relationship by supporting both your mind and your body. This body support is comprised of the following innovative elements:

- **Instinctive back:** Inspired by the human spine, Embody's back adapts to your unique spinal curvature. It lets you move freely and naturally to improve blood flow and eliminate discomfort and distraction. The back is narrow, allowing your arms to move back and forth naturally. This opens up the chest cavity, letting your lungs take in more air and send more oxygen to the brain.
- **Pixelated seat:** When you move, the seat moves with you. Using a matrix of pixels, the seat's unique, three layered construction of materials and technology conforms to micro-movements and distributes weight evenly.
- **Zoned Support:** The chair removes stresses on your body at every contact point, accommodating a diverse population. Reduced pressure improves circulation and



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facilitates the exchange of oxygen and carbon dioxide within cells. You stay mentally fresh and comfortable.

- **Working Recline:** Embody's unique tilt mechanism encourages working recline, the most healthful working position. The chair automatically stabilizes your pelvis in the seat pocket in every position and supports your thoracic back while correctly aligning your eyes with the computer screen. With no uncomfortable and distracting physical constraints on the body, the mind is freed to focus on ideas and the tasks at hand.
- **Inclusive Sizing:** Embody accommodates nearly everyone's abilities, dimensions, and preferences within one chair size. The seat surface length can expand or contract to reduce pressure on the thighs without disrupting the user's fully-engaged position in the seat pocket. The seat width accommodates the greatest population of hip-breadth dimension. The chair's arms adjust in height and width to support a full range of work activities and postures.

Additionally, Embody is committed to the environment as well, helping Herman Miller reach its environmental sustainability goals of zero landfill, zero hazardous waste generation, and zero VOC emissions by 2020. Embody adheres to the McDonough Braungart Design Chemistry (MBDC) "Cradle-to-Cradle" protocol. MBDC Silver certification is pending. Embody has 45 percent recycled content, is 96 percent recyclable, and is PVC-free.