Foot Comfort for the Fashionable

odellista Footwear's new shoe line takes comfort to a level that is out of this world. The company, headquartered in Wellesley Hills, Massachusetts, achieved this feat with Tempur® material, a special foam originating from NASA research that was later refined by Tempur-Pedic, Inc. Modellista uses the foam in their exclusive Tempur PRT insoles, which conform to each wearer's unique foot shape to absorb shock and cushion the foot. The foam's properties allow the shoe to change with the wearer's foot as it shrinks and swells throughout the day.

Scientists at NASA's Ames Research Center originally developed temper foam in the early 1970s to relieve the intense pressure of G-forces experienced by astronauts during rocket launches. In the following years, temper foam was used in wheelchairs, football helmets, airplane seats, and X-ray table pads. In the 1990s, the foam attracted increased attention when Tempur-Pedic, Inc., further developed it for their Tempur-Pedic Swedish Sleep System,[™] a line of mattresses and pillows.

Tempur material consists of billions of open, spherical-shaped cells that are viscoelastic, meaning solid with liquid properties. This viscoelastic property, in addition to the foam's temperature and weight sensitivity, enable the cells to shift position and reorganize to conform to body contours. The material softens in warmer areas where the body makes the most contact with the surface, and remains firmer in cooler areas, where less contact is made. By absorbing and evenly distributing a body's weight over its surface, the material eliminates uncomfortable pressure points.

Modellista's David Froment, inspired by the comfort of Tempur-Pedic's mattresses, sought to bring Tempur material to footwear. After acquiring a license from Tempur-Pedic, Froment and his team conducted 22 months of research and development. During that time, they overcame a problem that other shoemakers interested in the Tempur material had failed to solve. Traditionally, steam is used to shape shoes. Since Tempur material's extreme sensitivity to heat and moisture causes it to deflate upon contact with steam, Froment's team needed to develop an entirely new process. They devised a way to form the shoes without steam that does not harm the material. Even with this new process, the challenge to protect the material from the effects of hot, sweaty feet remained. To solve that problem, an antibacterial lining was incorporated into the shoe, designed to wick away heat and moisture. Froment's research, which included having his teenage daughter walk around the house with different densities of Tempur material tied to her feet, ultimately paid off with a colorful line of shoes built on a clog platform.

Modellista's colorful line of shoes use NASA-originated foam to absorb shock and cushion feet.





Froment's main goal in developing the Modellista line was to design a shoe that provided exceptional comfort without sacrificing style. He noted that all too often, health care professionals and chefs who are on their feet all day resign themselves to less attractive shoes in exchange for comfort. While Modellista offers an industrial line of shoes for these workers, every Modellista shoe provides the same amount of Tempur material padding. The difference in the industrial line is a stain resistant leather upper to protect the shoes against betadine, blood, urine, and other damaging elements.

The Modellista collection is the first shoe design and construction to be certified by the Space Awareness Alliance. The shoes, with designs ranging from traditional clog shapes to sling backs and open-toe sandals, are currently available nationwide at select Nordstrom stores, specialty shoe stores, and through catalogs including Garnet Hill, Faith Mountain, Monterey Bay, Hanna Anderson, and Soft Surroundings. Modellista is looking to expand the line by introducing new and interesting fabrics in addition to its current offering of leather, suede, and nubuck. After introducing Tempur foot pillow shoe inserts, Modellista is planning a full line of sandals. Future products may include women's pumps and men's dress shoes, which will surely bring relief to tired feet. \clubsuit

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The cells in Tempur® material are solid with liquid properties, allowing them to conform to body contours.