microtek™
laboratories, inc.

Phase Change Materials (PCMs) Textile Manufacturer

Objective

Develop a cost-effective microencapsulated PCM product for textile coating – one that applies easily and does not change the feel or hand of the material – designed to absorb or release heat generated by the wearer for regulated and balanced temperature comfort in all seasons.

Strategy

The textile manufacturer chose Microtek Laboratories based on its PCM design, manufacturing and testing expertise. Strategic advantages included 20-micron capsules with an 85 percent PCM payload, delivered in a wet-cake form for rapid dispersion into water-based compounds. Microtek also ensured optimum coatability on a wide variety of textiles, lower production costs and long-term temperature regulation in finished products.

Implementation

Microtek's unique wet-cake formulation allows the textile manufacturer to supply its coating lines with a product that requires minimal mixing, preparation and testing. Further processing and cost advantages result from Microtek's ability to ship the product in drums or super sacks to efficiently supply the customer's worldwide manufacturing facilities. The microscopic size and chemical properties of the formulation ensure uniform PCM quality, proper dispersion and easy adhesion to textiles. In addition, the coated textiles maintain the same hand or softness and have the ability to withstand cutting and sewing operations.

Results

The textile manufacturer has streamlined its processing operations by using Microtek's PCM solution, saving time and reducing processing costs while assuring quality finished products. Offering over 50 fabrics, finishes, yarns, knits and woven materials, the manufacturer is considered a pioneer in PCM textile applications. End customers include retail leaders worldwide in outdoor sports, casual apparel, footwear, accessories and bedding. Microtek continues to help the manufacturer develop innovative PCM applications and products for the textile market.

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