Polycarbonate Gives Sinus Therapy Device Strength and Striking Color

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The Challenge: Identify a material for use in an OTC sinus therapy device that helps to enable a successful product launch.
The Solution: Use a polycarbonate plastic that is low viscosity and offers excellent flame retardance, toughness, stiffness, and heat deflection.

MyPurMist is both portable and convenient for use by children and adults in their own homes.

Anyone suffering from colds, flu, sinusitis, allergies, croup, and chronic dryness knows the soothing power of warm vapor. Vapore Inc. [1] has brought a new dimension to this relief with its innovative, over-the-counter (OTC) sinus therapy device, MyPurMist.

Bayer MaterialScience LLC [2]'s Makrolon 6457 polycarbonate plastic's low-viscosity, high-performance properties made it a good choice for use in this product. This specific grade of polycarbonate is flame retardant with a UL 94 flame class rating of V-0 at a thickness of 3.0 mm. Its good balance of flame retardance, toughness, stiffness, and heat deflection makes Makrolon 6457 well-suited for this application.

The Makrolon 6457 polycarbonate resin is injection molded by SMC Ltd. [3] to form the translucent blue housing. SMC also provides full turnkey assembly of the MyPurMist device. In addition to the material, Bayer MaterialScience LLC provided continuous support to SMC Ltd., as well as a safety compliance certificate for the

material.

Makrolon 6457 polycarbonate plastic's low-viscosity, high-performance properties made it a good choice for use in MyPurMist. The high-clarity polycarbonate used enables the container of the product to have a translucent blue appearance.

"To truly bring a quality, reliable product to consumers, we had to find an equally impressive material. We found that and more in Bayer MaterialScience's Makrolon 6457 polycarbonate," said Kelly J. Brodbeck, chief executive officer, Vapore Inc.

The device brings to the consumer market a patented technology that was previously only available in hospitals and acute care settings. MyPurMist is both portable and convenient for use by children and adults in the comfort of their own homes. MyPurMist uses Vapore Inc.'s patented Capillary Force Vaporizer technology and engineered ceramic materials to turn water into vapor instantly, efficiently and without heating a reservoir. The device serves as an alternative to warm or cool humidifiers and OTC drugs.

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