The Thermoforming Times

Associated Thermoforming Inc.

Quarterly News About Precision Pressure, Vacuum and Twin Sheet Forming

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ATI wins Multiple SPE Thermoforming Awards for 2006

2007 Twin Sheet Award

2007 Industrial Application Award

This challenging, light weight polypropylene surgical helmet was developed for a large medical company and won the **SPE 2006 Award for Twin Sheet Product**.

The helmet supports surgical accessories like a face shield, fan, light, and communication device. The mold utilizes a tricky parting line and the thin gauge was a challenge to mold and machine trim. **Material used is a polypropylene co-polymer, .050" and .065" starting gage.**

This ABS/polycarbonate twin sheet tray with over-molded steel reinforcement was developed to replace a steel tray and is used to dry cylindrical battery cells about the size of a can of tennis balls. The tray is 45" long, hangs on two 3/8" diameter pins and must support 200#'s of cells while they circulate through a large oven at 200°F for 14 hours with almost no sag! This tray saved our customer six figures in scrap as well as energy costs due to reduced tray weight. **SPE awarded this part the 2006 Award for Industrial Application.**

6'x11' Twin Sheet MAAC Rotary Former

ATI is thinking **BIG** with this new, state of the art MAAC twin sheet, high speed rotary forming machine. It features 6'x11' mold platens, both capable of 30" draws, which can form some big parts as well as accommodate large multiple cavity tools. The clamp-frame system is articulating: It can stretch pre heated sheet to better optimize material use, especially valuable in expensive heavy gauge materials. The machine utilizes many state-of-the-art tools for increased process control.

Medical Monitor Enclosure Demonstrates Injection Molded Quality with Low Development Costs

One of our reps got into a discussion with a prominent medical company that was developing an enclosure for an ultrasound monitor. Their forecast volumes were only 500 per year for this 12"x13"x3" two part enclosure, but they were thinking injection molding for quality and cost reasons.

Fortunately, our rep steered them toward pressure thermoforming with an aluminum textured tool even though he also sold Injection Molding. This two part enclosure was tooled in 6 weeks for $28K, which is considerably less that two comparable injection mold tools.The customer was pleased with the quality as well as our flexibility to accommodate the EC's quickly and economically.

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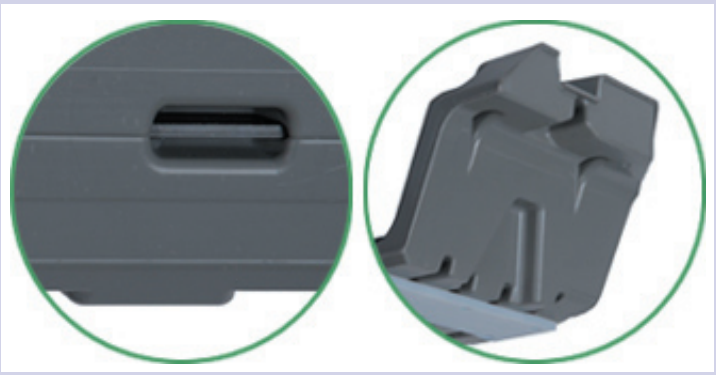
Design Tips #1

Insert molding (over-molding): This is a technique ATI employs, especially, but not limited to, twin-sheet molding where exceptional stiffness is a requirement. In this case, metal reinforcement structures are mounted in the mold prior to forming. The material, generally of the bottom sheet, "wraps around" the reinforcement in selected areas, entrapping it in the part. This provides significant additional structure, generally at a lower cost than the alternative of either foam-filling and/or much thicker starting plastics.



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Use of Decorative Plastic Sheet Products: There is a tremendous availability today of printed/laminated thermoformable sheet products that can impart almost any appearance to your thermoformed product, be it a metallized look, wood grain look, or carbon fiber. These lend themselves to being thermoformed in male molds. For an idea of the selection available, visit: http://webexhibits.org/daylightsaving/b.html.

Please visit our **Website Gallery** for more information on some interesting projects we have done for our great customers.

Call Us With Your Toughest Plastic Forming Problems!

address 765 2nd Street, Berthoud, Colorado 80513
phone 970-532-2000 **metro area** 303-440-9621 **toll free** 800-466-MOLD **fax** 970-532-2942
web site www.ThermoformS.com **email** ati@ThermoformS.com