



ZOTEnotes

 ZOTEFOAMS	OCTOBER 2007	ISSUE 05
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INSULATION COOPERATION



UFP Technologies, Inc., a foam products company, recently introduced T-Tubes, its stainless steel tube insulation for clean processing environments. Molded to fit industry standard tubes and fittings, T-Tubes are thinner, easier to install, chemically resistant up to pH 12, require no jacketing, withstand temperatures of -48°C to 155°C and achieve better than industry performance for ASTM E84 with a flame spread index of five and a smoke developed index of five. They provide critical protection for personnel working around hot processing lines in the biotechnology, semiconductor, pharmaceutical, chemical, cosmetics and food and beverage industries.

T-Tubes are made from ZOTEK F, the Zotefoams family of closed cell foams based on Kynar PVDF (polyvinylidene fluoride). T-Tubes will not wick or absorb moisture and are entirely washable. They are also crush resistant, which can be an issue with PVC-jacketed insulation that

creates particulates when cut or impacted. Their smoke, flame and toxicity properties as well as their chemical and UV resistance are excellent.

With their durable, chemically resistant skin and overlapping adhesive tape closure, T-Tubes combine safety and installation simplicity in a space-saving, clamshell design. With a wall thickness of only one quarter of an inch, T-Tubes replace one- to two-inch fibrous or open-cell insulation materials and do not require additional jacketing. T-Tubes can be installed in one step and their fine cell structure doesn't create dust when cut.

In a joint initiative, Zotefoams and UFPT are working together to develop T-Tubes as a worldwide brand. UFPT will market and develop T-Tubes in North America while Zotefoams will be responsible for the brand in Europe, Middle East and Asia.

Welcome to the latest edition of Zotenotes at what we consider to be a very exciting time for our business.

Demand for our polyolefin products, Plastazote, Evazote and Propozote remains very strong and we are taking steps to increase capacity through new capital investment, which we appreciate cannot come too quickly for some of our customers.

The introduction of an initial grade of ZOTEK N Polyamide foam has stimulated great interest, particularly amongst automotive manufacturers and the new, softer, improved grades currently in late stage development are awaited by the industry with enthusiasm and anticipation.

We are pleased to have come to an agreement with UFP Technologies to develop the European and Asian markets for T-Tubes®, a high performance insulation system based on ZOTEK F that is targeted for use in clean processing environments in the semiconductor, pharmaceutical, biotechnology and nuclear industries. This is an opportunity identified and pioneered by one of our longest established converters. We look forward to working closely with other customers who have identified projects of significant potential

and needs assistance to exploit them.



David Stirling
Managing Director

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Plastazote... an educational material

Plastazote for Future Scientists?

National Science and Engineering Week, funded by the UK Department of Trade & Industry, is intended to give an opportunity for people of all ages, areas and organisations to take part in science, engineering and technology activities.

In the 2007 event, Plastazote was selected as a project material. Pupils were invited to "... carry out a scientific investigation into properties of a smart material called Plastazote and then design and make their own Plastazote models."

Setpoint, the charity organization responsible for running the Plastazote project, offers a 15 minute video entitled "Working with Plastazote Foam" in order to help students get a flying start with their projects.

Judging by the amount of inventive thinking that went into many of the projects the future of Plastazote is in good hands.

Foam Beanie Wins the Day



L to R Marcus Kewell (Kewell Converters), Dylan Banks, Dean Lovell (Zotefoams)

The 2007 winner of the Zotefoams sponsored London South Bank University design project is Dylan Banks. In his project submission he addressed the problem of snowboarders not being willing to wear conventional protective helmets by designing a beanie hat that incorporates impact absorbing Plastazote® foam protection.

Second of a very strong field of submissions, according to Dean Lovell of Zotefoams, was Craig Drummond for his "sledge legs" with the third prize going to Ashok Ullah for his foldable prayer mat.

"The future of product design appears to be in safe hands, judging by the outstanding quality and ingenuity of the submissions" said Nick Kewell, a member of the judging panel.

Students were provided with supplies of Plastazote foam and given guidance on its performance characteristics and processing parameters by Kewell-Converters. The Zotefoams approved converter then provided assistance in prototyping the submissions.



Plastazote in Rehabilitation

The Acro Assist Arm Abduction Orthosis 50A1 by Otto Bock is designed to give shoulder positioning through arm abduction, following post-operative or post-traumatic treatment. It enables shoulder positioning, and simultaneously relieves strain on the shoulder joint with adjustable angles of 30°, 60°, or 90°. Using a special lightweight frame construction and Plastazote LD45 the Acro Assist is lightweight and pleasant to wear.

Otto Bock selected Plastazote material due to its "biocompatibility" for direct skin contact. The body and shoulder padding is thermoformed in-house and the Company has been impressed by the quality of surface finish they are able to achieve with Plastazote.



The thermoformed body part is designed to be easily cut along embossed lines and shaped to fit both the male and female form.

As well as the Acro Assist, Otto Bock uses Plastazote and Evazote materials in a number of orthopaedic and rehabilitation applications globally.

Plastazote SD for ultimate wafer protection

Semiconductor wafer fabrication is going through dramatic changes as the market requires ever more functionality from ever-smaller chips at ever cheaper prices.

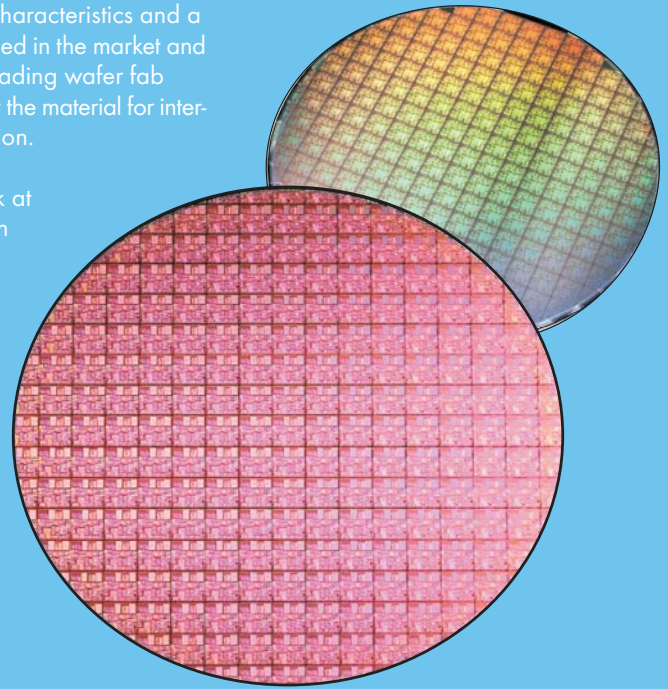
In order to meet these requirements, chip makers have pioneered the development of 12" diameter wafers and increased the precision of the lithographic processes used in manufacture, moving it firmly into the nano technology arena (sub 90 nm resolution).

The larger wafer sizes require enhanced damage protection and the move to nano technology demands packaging with exceptionally low levels of impurities (LOW VOCs).

Plastazote LD30 SD foam is a natural choice, having the fundamental static dissipative properties combined with

excellent cushioning characteristics and a level of purity unequalled in the market and consequently many leading wafer fab operations now specify the material for inter-process wafer protection.

The next time you look at your digital watch, turn on your computer, or get a message on your PDA, remember there is a distinct possibility that the chip inside has been protected with Plastazote during its manufacture.



Plastazote in the Balance



New Balance, the international athletics footwear manufacturing company is incorporating Plastazote into its pressure relief sports insoles.

The IPR 3000 insoles incorporate Plastazote as a top layer. It uses your body's heat to mould to the shape of your foot which helps reduce blister-causing friction while spreading pressure evenly.

Plastazote has been used successfully for many years in insoles that address the problem of diabetic foot but it is now finding favour with the sports fraternity.



Plastazote showered with praise

Hans Grohe is one of the most innovative European manufacturers of shower fittings, closures and accessories and has been in the business for over a century.

The Company sought a method by which a wide range of products could be shown to customers at a glance... a professional method that would reinforce the products attributes of quality and dependability.

Hinzsch Schaumstofftechnik a Zotefoams specialist converter based in Mönchweiler, Germany, working closely with Hans Grohem, came up with the concept of packaging the shower heads and fittings in a high quality, high value, robust metal case; one that not only guarantees protection but also emphasizes the value of the products through their presentation.

Obviously the insert used to secure the products inside the case had to be of a similar high quality and a die cut Plastazote insert was the obvious solution.

Plastazote's quality, consistency and aesthetic appeal, combined with its long-term durability were just what the client was looking for... properties that make Plastazote the World's most popular foam material for high quality case inserts.



Evazote on high

Cascade
Eurohike
Stormlite
Isoprofil-line
Thinlight
MEC ...

Trek Mat
Multimat
Evaz
Nightlight
Sitlight

...Just some of the many branded camping mats that are manufactured using Evazote® foam. Evazote became the cult material for camping mats thanks to the Mt Washington sleeping pad in the USA and the Karrimat European version that was used on many an Everest expedition. Wherever quality and comfort are essential, Evazote is the insulation material of choice.

Many of the adventurers that have scaled the world's 8000 metre peaks also have



Evazote to thank for foot comfort. At those altitudes, leather boots freeze and are impractical. The boot of choice, said to be the "warmest on the market" is called "the Everest", the upper of which is constructed from an Evazote and Cordura® combination for extra insulation and warmth. More adventurous readers will be pleased to learn that according to the Nepal Tourism Directory, delivery of these boots is free to Kathmandu only.



No Case to Answer...



Wetropa, a Zotefoams' Specialist Converter has pioneered the use of Plastazote as an "insert that doesn't need a case". Combining different coloured Plastazote layers gives tool control visibility benefits while an integral custom clasp keeps the Plastazote case securely closed.

Seen in a recent job ad!

Experienced prop / model maker required to make character heads for costume company. Must have good eye for detail, great glue gun skills, ability to work with fun fur and Plastazote. Clearly Plastazote is the foam material of choice for Costumes of Character.

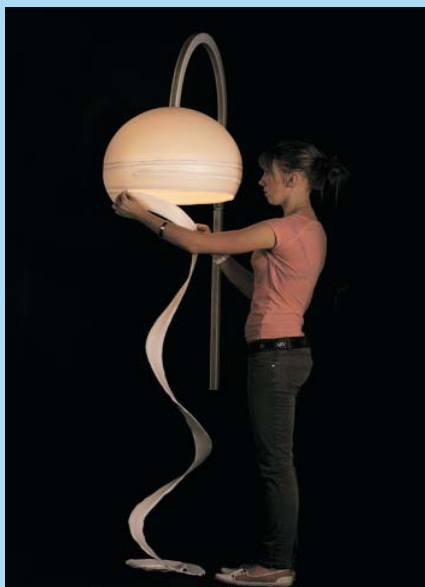


100% Design

Zotefoams was pleased to sponsor Demelza Hill, a young and innovative product designer, at 100% Design, The Contemporary Interior Design Exhibition, recently held at Earls Court in London.

Further assisted by SJG International Ltd a Zotefoams Wholesaler Converter, Demelza exhibited a radical light design that requires the user to interact with the form by zipping a spiral up or down to reveal however much or little light they require.

The shade of this wall mounted reveal light is manufactured from Plastazote, a material with which Demelza freely admits she enjoys working.



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