

Issue 7: Foam

## Zouch Newsletter - keeping you in the loop! January 2012

#### Foam flies high

A low-moisture polyetherimide (PEI) foam for composite aircraft structures not only reduces weight, helping save fuel and reduce emissions, but it also reportedly lowers systems costs while delivering equal or better performance than traditional materials.

Weight gain from moisture absorption adds to an aircraft's weight and impact fuel consumption and emissions. On average, an aircraft will burn about 0.03 kg (0.06 lb) of fuel per hour for each kilogram (2.2 lb) carried on board. Moisture absorption can disrupt electronics or cause condensation on sensitive areas of the interior. Foams are used to aid the cycle of absorption and drying that occurs as the aircraft travels through different environmental conditions.

#### UK government recognizes plastics' green credentials

A government minister has acknowledged the United Kingdom's plastic industry's role in helping to create a greener economy.

Mark Prisk, a minister at the department for Business, Innovation and Skills (BIS), said he recognized the work the sector was doing, "in particular through developing and supplying low carbon products and solutions which help other manufacturing sectors."

"Plastics are increasingly used for components across business sectors. For example, in the automotive and aerospace sectors plastics usage is significantly reducing the weight of motor vehicles and aircraft, resulting in improved fuel efficiency, and corresponding reductions in emissions," Prisk added.

#### **Foam facts**

- Originally, foam rubber was made from natural latex, a white sap produced from rubber trees. As early as 500b.c., Mayans and Aztecs used this latex for waterproofing purposes and also heated it to make toy balls.
- The construction, transportation, furniture, and carpet industries are the largest users of polyurethane, with construction and transportation leading.
- The market for flexible foam continues to expand into nontraditional areas, such as shock absorption, acoustical applications, and toys

# **SPECIAL FEATURE**



**Case Study: Compression Moulding** 

The prevalence of pressure ulcers among wheelchair users and bed-ridden patients continues to be an additional complication for patients, physicians and carers alike. From a medical point of view, pressure ulcers are considered a recurrent and difficult aspect of the management of people with complex physical disabilities. The development of ulcers has been known to significantly delay patient rehabilitation and increase the likelihood of developing secondary ailments, in extreme cases they have been known to cause death through septicaemia. Dedicated to product development, Zouch Converters have recently seen their ZOUCHefoam IXPE 30 material evolve into a state-of-the-art cushion designed in conjunction with a medical grade silicone gel technology, used to ascertain superior postural management and pressure redistribution as well as providing cooling properties designed for greater comfort for the patient.

Lightweight and durable, the foam offers unique properties which ease the immeasurable pain of pressure ulcers and provide comfort and stability at the same time.

### For more information on our ZOUCHefoam range call our Sales Team on 0115 9886295

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