



Bio-based surfboard foam

TECNIQ LLC, San Diego, California, USA, a leading developer of environmentally conscious materials and products, and SYNBRA BV, Etten-Leur, The Netherlands, leading innovators in expanded rigid foam technology, announced in October the creation of the world's first certified 100% biodegradable and 99% bio-based surfboard foam.

"Surfboards have been overwhelmingly made out of petroleum products since the 1950's," says Rob Falken, Tecniq's Managing Director. "We've worked really hard to create an alternative that doesn't compromise performance and that delivers tried-and-true characteristics for surfers, shapers, and glassers alike," he continued.

The foam is produced in a patented process that utilizes converted locally abundant sugarcane biomass (certified GMO-free) provided by Corbion Purac that is polymerized to PLA by Synbra Technology BV and expanded into rigid foam by Synprodo BV. "For me, the best parts are that the foam is created entirely from a renewable resource and that dangerous chemicals are not used in production. This means the foam is drastically less toxic for the surfboard craftsmen during shaping" stated Falken.

Holding their companies to an examined approach, Tecniq and Synbra will have full transparency in the life cycle of the surfboard foam. An independent Life Cycle Assessment (LCA) has already been secured, as have certificates of validation including decomposition, compostability, bio-based content, GMO-free, and Cradle to Cradle. In addition to the environmental claims validations, the foam boasts the ultra-eco use of benign CO₂ as the sole blowing agent in the expansion process.

The brand name for this new surfboard foam technology is BIÓM™ (pronounced BY-ohm). The first manufacturing site will be located in the Netherlands with production commencing in the third quarter of 2014. There are plans to develop US manufacturing in late 2014 or early 2015. In addition to surfboard foam, BIÓM will find use in stand up paddleboards, wakeboards, skimboards, kiteboards, and other types of watercraft. [MT](#)

www.synbra.com
www.tecniq.com
www.bioblanks.com

Breathability enhances safety

A US company has developed a ground breaking fabric that offers high level chemical protection, using NatureFlex™ from Innovia Films (Wigton, Cumbria, UK) within its construction.

For thirty years Kappler® based in Guntersville, Alabama has defined the protective garment industry with patented fabrics, innovative seaming technology and unique garment designs. Their latest product Lantex™ 300, a National Fire Protection Association (NFPA) 1994 Class 3 certified Chemical, Biological, Radiological and Nuclear (CBRN) breathable protective suit, allows users in a hazardous chemical emergency situation to wear them for longer.

George Kappler, President proudly states "For years the Holy Grail of chemical protective clothing has been the quest for comfortable, breathable yet chemical protective fabrics. We, at Kappler believe we have achieved this quest with Innovia Films' help. Our Lantex fabric gives good general chemical protection while reducing the heat stress associated with chemical protective fabrics."

He continued "The breathable properties of NatureFlex have enabled us to develop an improved lighter fabric while maintaining essential chemical and gas barriers. In the environments for which this was developed, Lantex 300 is a significant improvement over existing safety chemical suits."

Thomas Gwin, Innovia Films' Sales Executive, explained: "We are delighted that our renewable NatureFlex film's moisture vapour transmission rate (MVTR) ensured that it provided the necessary performance to be included in this unique fabric."

NatureFlex film's inherent properties make them an ideal choice for this application. They are naturally permeable, allowing loss of moisture from within the suit as well as bi-directional gas transfer. At the same time, the barrier to micro-bacterial contamination from outside the suit is maintained.

NatureFlex's natural permeability can be controlled and tailored to the moisture barrier needs of the application or product by using a wide range of special coatings applied during production. [MT](#)

www.NatureFlex.com
www.kappler.com

