

■ EFFECTIVE THERMAL INSULATION WITH WOOD FOAM

Insulation materials of tomorrow must be both efficient and environmentally friendly. Fraunhofer scientists are developing insulation foam made from wood that could replace petrochemical plastics in the long term.

Traditionally the construction industry uses hardboards or expandable foams based on petrochemical plastics because they are good insulators that are affordable and easy to produce. But these materials are not particularly kind to the environment, so the long-term objective is to replace petroleum based products with materials derived from renewable resources.

Researchers at the Fraunhofer Institute for Wood Research, Wilhelm-Klauditz-Institut, WKI in Braunschweig have adopted a very promising approach to the problem by developing a method for creating foam from wood particles. "Our wood foam can be used in exactly the same way as conventional plastic spray foams, but is an entirely natural product made from sustainable raw materials," explains Professor Volker Thole of the WKI. The scientists produce the foam by grinding wood very finely until the tiny wood particles become a slimy mass.



They then add gas to this suspension to expand it into a frothy foam that is then hardened. The hardening process is aided by natural substances contained in the wood itself. In an alternative method, specific chemical processes are used to produce the final product. "It's a bit like baking, when the dough rises and becomes firm in the oven," Professor Thole explains. Wood foam is a lightweight base material that can then be made into rigid foam boards and flexible foam mats.

Source: <http://phys.org/news/2014-03-effective-thermal-insulation-wood-foam.html#jCp>

■ TEKNOCOAT AQUA PRIMER 1867-50: New knot sealer for the interior



With resinous softwoods, the escaping resin can cause discolouration at knots. The pigments in the resin can cause yellowing on the paint surface, especially with white opaque coatings. Preventing these discolorations requires a special primer.

Teknos developed the latest knot sealer TEKNOCOAT AQUA PRIMER 1867-50 for this very purpose. The acidic white primer is specially designed for knotty pine wood on interiors. TEKNOCOAT AQUA PRIMER 1867-50 binds the colour substances in the resin and ensures that they remain inside the wood. This prevents knots in pine from causing discolorations in the topcoat treatment with white or light opaque paint. TEKNOCOAT AQUA PRIMER 1867-50 is expected to be available in November 2015.

Source: http://www.teknosnews.com.pwn/2015-3/pdf/Teknos_paining_Wood_Newsletter_3_2015_EN_2.pdf

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