# Product innovations made from hemp: Flap discs and the briefcase from domestic agriculture

Get-up-and-go mood at the "Second International Conference of the European Industrial Hemp Association (EIHA)"

On November 18th and 19th, more than 80 hemp and natural fibre experts from 20 nations – almost all European countries as well as Japan, Australia, Canada and the USA – met in Hürth in the Rhineland for exchanging the latest developments in the field of hemp utilization. It was the main goal at this occasion to open up new fields of application for hemp fibres, hurds and seeds.

In the German automotive industry, already today 45,000 composites with natural fibres like flax, hemp, jute, kenaf, sisal or abaca are applied per year – unluckily, invisibly in interior door and boot panelings (see news of 2004-10-29). Dirk Fischer from R+S Technik (Offenbach), a leading German engine building company, impressively showed how technically mature and applicable for full-production runs the production technology "pressmoulding" is. His company delivers respective facilities to automotive suppliers throughout the world.

Up to now this production technique was fully restricted to the automotive industry, but now its use in new branches is about to begin: At the EIHA conference, two briefcases were presented to the worldwide public for the first time which are produced by means of the pressmoulding technology, "proudly" presenting this innovative material and its natural fibres without any lamination. Other branches like e.g. the furniture industry now could well pay attention: natural fibre press-moulded parts are lightweight, do have a high mechanical load capacity, are competitive in price and producible with mature large serial production technique, and (non-laminated) do feature a new interesting look and surface feeling.

#### **Briefcases**

Not one, but even two companies presented natural fibre briefcases: one briefcase consists of Kenboard® made of natural fibres (hemp, flax and kenaf) with polypropylene as matrix by R+S Technik, and one is made of the natural fibres hemp (50%) and kenaf (50%) by J. Dittrich & Söhne Vliesstoffwerk (Ramstein-Miesenbach) that uses the BASF duroplast Acrodur as matrix. According to Heribert Jungmann and Manfred Lahm, before long Dittrich will introduce a complete product series with briefcases, eyeglass cases etc. that is available in both "natural" (Nafacryl® basic) and coloured (Nafacryl® color) look. The briefcases will be available in a first series still before Christmas. The marketing partner Hempro International (Düsseldorf) will be accepting orders from now on and has already aroused vivid interest at the congress.



From left to right: Heribert Jungmann (J. Dittrich), Daniel Kruse (Hempro), Manfred Lahm (Developer for J. Dittrich), Dirk Fischer (R+S Technik) and Michael Karus (nova-Institut); Photographer: Francois Desanlis (EIHA)

#### Flap discs

Apart from the briefcases, another new product was presented which is already in production, introduced to the German market a few days ago: One of the leading manufacturers of flap discs, the company <u>Eisenblätter</u> (Geretsried) has developed a flap disc which uses an injection-moulded part made from polypropylene (PP) and hemp fibres as backing disc for the first time. The hemp fibres serve reinforcement, replacing the up to now used glass fibres. Advantages cited are the avoidance of glass fibre dust pollution as well as the simpler disposal.

## **New materials**

The EIHA Conference basically focused on new materials from hemp fibres. Eight lectures revealed up-to-date market trends in Europe and Canada, new products and technical development potentials. Especially PP natural fibre injection moulding was referred to as "sleeping giant" by Michael Karus, managing director of <a href="mailto:nova-Institut">nova-Institut</a>. Good mechanical properties, the use on non-modified injection moulding machines and an attractive price make this new material interesting for many branches.

## **Quality management**

Further lectures dealt with the quality management of natural fibres. Here for example Hubertus Schmidt (<u>IST Ltd.</u>, Vilters) from Switzerland presented the measuring system

FIBRESHAPE, with which, compared to hitherto existing techniques, natural fibres can be analysed very quickly and cheaply by means of a high-performance scanner and special software.

# Hemp textiles and building with hemp

Other sessions dealt with the potential and the restraints for hemp in the textile sector as well as the numerous ways of using hemp fibres and hurds in the building sector. Here great interest was aroused by the German market introduction program for insulation materials made from renewable resources, as well as by the highly advanced building technique from France (Balthazard & Cotte) where already hundreds of complete houses have been built with the combination of hemp hurds and lime. This building technique shall now be introduced also in other countries.

## Hemp foods in Canada

The lecture by Gero Leson (Leson Environmental Consulting, USA/Kanada) on the increasing use of hemp seeds in the Canadian food industry was another highlight of the congress. In the last five years, a multitude of hemp foods could be developed and placed on the market, like e.g. hemp nut bars, hemp granola, hemp protein powder, hemp oil or hemp noodles. These products ideally fit into the healthy food market that puts special emphasis on a good fatty acid spectrum which is ideally supplied by hemp seeds. Accordingly the cultivation figures of industrial hemp - which is primarily cultivated for seed production there - have developed very well in the last four years.

On the whole, the EIHA Congress revealed a positive mood, all sectors could significantly professionalize themselves in recent years and are now ready for opening up further markets.

A CD-ROM with all lectures will be available at www.eiha.org within short.

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