



Frank Baier

Paper with a New Recipe

Cotton or wool, grass or hemp as ecological components: Numerous innovative paper products characterize today's product ranges.

Paper mills are frequently launching new, original products, taking the train directly in the direction of environmental protection, conservation and resource conservation. International competition for original ideas for ecologically sustainable specialty papers based on alternative natural fibers or recycled materials has long been in full swing.

Now some dried grass

Meanwhile, grass paper is known for applications as a plastic substitute, for packaging or even hygiene paper products. For this purpose, dried hay is processed by a method developed by [Creapaper](#) in Hennef, Germany, and used alongside virgin fiber pulp made from wood (cellulose) or recycled paper. Using a grass input of 30 percent, around 15 percent CO₂ emissions can be saved in paper production together with recovered paper and around 23 percent CO₂ emissions together with virgin fiber from wood.

Creapaper estimates its own production capacity at its Düren mill at around 25,000 tons of fiber material. A new, mobile plant with 20,000 metric tons is to be added before the end of spring 2021. Grass paper is recyclable and, depending on how it is printed (for example with ecological, water-based inks), 100 percent biodegradable. Several suppliers and service providers in the printing industry now have it in their portfolio.

Hemp without an (intoxicating) kick

Currently, hemp is being used in several fashion products in the consumer goods industry. After developing a hemp paper with up to 50 percent cannabis pulp, the German paper manufacturer [Gmund](#) is now producing a special paper with 100 percent cannabis pulp (without dyes). Its long fibers are said to be a challenge for paper production, but at the same time make the material strong in structure and soft to the touch.

Compared to wood pulp, hemp pulp, which is four to five times longer, is said to have higher tensile, tear and wet strength, and its robustness enables more frequent recycling cycles. Meanwhile, the company produces notepads, postcard sets and greeting cards from hemp paper for its own retail division. In addition, agencies and printers as well as branded companies order it – and make special brochures, catalogs or packaging from it.

Beautiful textile look and feel

Already today, paper products with natural components made from algae, cotton, fruits, leather, nuts, cellulose or wool are not a novelty for the Italian paper manufacturer [Favini](#) with headquarters in Rossano Veneto and production in Crusinallo. The company produces its range of new „Refit“ recycled papers (15 percent textile residual fibers, 40 percent recycled household waste and 45 percent virgin fibers) with self-generated hydroelectric power.

„Refit Cotton“ and „Refit Wool“ are among them: the textile residual fibers come from by-products of spinning and carding cotton and wool, respectively, and give the recycled paper a special look and feel with the visible down. It will primarily be used to produce packaging for luxury and fashion articles. Wholesaler [Antalis](#) sells the „Refit“ range in Germany and Switzerland, among other countries.

Stone paper instead of plastic

[Aprintia](#) from Dreieich in Germany has been offering stone paper products for more than five years. This material can be used to produce point-of-sale items, (roll) labels, maps and city plans, or advertising materials. The material, which consists of calcium carbonate (80 percent) and polyethylene (20 percent), is said to be easy to write on, very tear-resistant, water-resistant and thus comparable to pure plastic. So far, the print service provider has been allowed to print operating instructions, advertising pillar posters or emergency instruction sheets on the material.

However, Aprintia is not very happy with the current response to the stone paper products. Some customers, they say, have existential problems and are unable or unwilling to pay a higher price than for standard products. Ultimately, the willingness to contribute to the conservation of resources with the help of ecologically oriented print products would also be out of the picture.

Yours

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