



BIOLOGIQ
Intelligente Produkte aus
Faserverbundwerkstoffen

Hemp Natural Fibre Compounds

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Natural Fibre Compounds

From Günther Plastounik, Austria



Picture 1 hemp field 2 hemp harvesting 3 maturation 4 hemp 5 Technical products

Summary:

Starting position: It will be built in BiH (Federation) an entirely new industry for the production of natural-fiber composites.

The annually requisite renewable raw materials grows in the region (hemp and flax) and will be delivered by the agriculturists to us directly.

This raw material (hemp, flax, etc.) will be processed for industrial applications in our facilities and further processed in our industrial plant (which 4.0 Policy works by modern industry) to create products for the international market!

Investment volume: For the construction of the agricultural cooperative, for the new fiber preparation plant of development laboratories of production and for marketing an investment in the sum of 22.5 million EUR is planned.

Marketing: It is planned to provided a master franchise system for the sale of licenses. Moreover, the distribution of our products manufactured through partners (direct investments from the sales partners is planned) in the respective industries is sought (automotive engineering, aircraftindustry, shipbuilding, yachts, sports goods, building industry, facades and roofsystems, etc.).

Returns: For the investors are calculated, depending on the type of participation, (investments up to max.49% provided) yields of 3-4%.

Hedge: The technology to create hollow profiles is protected by a patent-pending-process. Also the QA-procedures for processing the raw material hemp, kenaf, flax, etc. for the roof and facade elements is protected by a product-patent for Günther Plastounik.

NFC (Natural Fibre Compounds) - PLASTOUNIK Compound material based on natural fibres, an investment in a future with high potential. Compound materials that are reinforced with natural fibres open new opportunities and advantages compared with the traditional compounds, reinforced with fibres based on hydrocarbons. During the last years first such materials were entering the market or are actually on the leap to do so. Using natural fibres is today's choice and offers lots of potential to grow. In some fields such materials are already state of the art, for example in the car industry. According to their great features technically as well as economically, natural fibres have the potential to substitute fibres made from hydrocarbon in many fields. Interested in sustainable solutions, Mr. Günther PLASTOUNIK investigated about the experiences in using natural fibres in different sectors of technology and found out, that the main challenge is providing a reliable quality control and an accurate description of the technical features of the natural fibre. Having developed tools to screen the technical features of natural fibres and so with creating a basis for a standardized classification system for natural fibres, this improves the usability of natural fibres and creates additional potential in all fields of technology. That means to assure high level quality management for natural fibres, what helps technological requirements of today being complied by raw materials from "around the corner". Natural fibres from local providers, grown, harvested and conditioned at a very low carbon dioxide emission rate, can be the basics of new, regional economic cycles, providing new industrial jobs on a high level of sustainability.

Compound materials based on natural fibres (NFC - Natural Fibre Compounds), a great combination of nature and chemistry. Materials like hemp - used over centuries - are going to define new standards of nature based products, because of the opportunity to guarantee a standardized quality of this natural fibres. Mr. Günther PLASTOUNIK is going to implement a quality management system for natural fibres from hemp for all the process, from the optimum time of harvest to the technical classification of the final fibres, based on innovative laser technology in combination with high end picture resolution systems. This standardized classification of the fibres will open opportunities to use natural fibres even for highly stressed elements. In most cases the natural fibre is well suited to substitute other fibres like carbon or glass - fibres. Fields of use for NFC-products and their advantages in the market. In phase 1 natural fibre compounds(NFC) will be used for innovative system parts for facades and roofs of buildings, combining the advantages of an patented quick mounting facade system and the possibility of individually customized designs at an attractive price-quality ratio. In phase 2 NFC will be used for parts in the automotive and aviation sector, as well as for high end sports devices. This new technology will prove to meet all technical requirements, while at the same time will significantly reduce the carbon footprint. First parts have already been produced and met all quality requirements according to the results of pre-testings. Market and chances. The initial focus will lay on facade and roof systems for thermal reconstruction projects and on strategic partnerships with producers of ready built houses. First interested customers and potential partners are already at hand. Project NFC-PLASTOUNIK. NFC-PLASTOUNIK will develop new products based on natural fibres, set up and implement the quality management system based on laser technology, manage the certification process for different markets, the adaptation of existing production equipment for the material used and its own research and development department as well as the production based industry 4.0. The investment for this part of the project is 22.5 Mio EUR. To be able to guarantee the quality of the fibres it is intended to establish an agricultural association which will be obliged to produce, harvest and roast the hemp according to the requirements of the

quality management system of NFC-PLASTOUNIK.
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