

CABKA - Recycled Pallet System

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INFORMATION ON THE ECO-INNOVATIVE SOLUTION PROVIDER

This eco-innovative solution is the output from the project titled “Eco-friendly high performance fiber composite material” co-funded by the European Commission within the framework of the Competitive and Innovation Program. This solution has been developed by a team coordinated by Van Maren Systems BV (NL), in partnership with Ecotech Marche srl (IT) and Recycle Belgium bvba (B).

SHORT DESCRIPTION OF THE ECO-INNOVATIVE SOLUTION

This Recycled Pallet System is an integrated production facility for plastic agglomerates, pallet components for hybrid pallets and plastic pallets. The input materials are post-consumer recycled plastics, which is considered to be a very difficult waste stream, ensuring a very low ecological footprint. The pallet components and plastic pallets made from the agglomerates replace virgin plastic and wood pallets. The reuse of plastic waste reduces the demand for virgin plastics and for wood for pallet production. The hygiene factors and the prevention of heating or fumigating with methyl bromide is an important driver. The durability and working life of the plastic components and plastic pallets are superior compared to wood and at the end of the life cycle, recycling is again possible.

INDUSTRIAL SECTOR – MARKET SEGMENT AND ACTUAL APPLICATION IN INDUSTRY

30 Rubber and Miscellaneous Plastics Products

INDUSTRIAL CLASSIFICATION - NACE CODE;

22 Manufacturing of rubber and plastic products

1. DESCRIPTION OF ECO-INNOVATIVE SOLUTION

Technical aspects of the eco-innovative solution

The core element of the innovation consists of the adaptation of a normal injection moulding machine to process recycled plastic flakes. Plastics originate from packaging (PE, PP, PS, PET) incl. packaging parts such as caps, lids and labels. Additional equipment makes it possible to transform the recycled post-consumer plastic into high quality pallet-blocks. Parts of an existing moulding machine need to be adapted and some of the equipment has to be procured from European suppliers. Once installed, the system is similar to a moulding process and does not need additional skills.

A state of the art injection moulding machine will be used for the pallets. New technology from an external supplier needs to be procured for the blocks.

Economic and environmental benefits of the eco-innovative solution

Capital investment is in the range of 250,000€ for a process line of 4,000t/yr of input materials. Main environmental benefits are due to reduced landfill costs and economic revenues come from the sales of the pallets.

2. AVAILABILITY OF THE ECO-INNOVATIVE SOLUTION AND BUSINESS PARTNERSHIP

Market readiness, Trade mark, existing market coverage, commercialization strategy

The final products are already available in The Netherlands, Germany, Belgium, Spain, France, Poland and Sweden. Over 20 million plastic blocks and over 1 million plastic pallets have been manufactured for the market. There is no trade mark available.

Requirements to adapt the solution to the local market and potential applications/market size

The process depends on the quality of the recycled plastic waste, which should be available locally.

On-site after-sales services support and the technical assistance requirements

After sales service will be provided from The Netherlands.

Targeted local business partners

Producers of large plastic parts.

Type of local business partnership sought

Licence agreement : royalties + startup fee.