




Deliverable n°T2.2.3

Production of a prototype advertising medium

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KAÏROS



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Partners

PP Leader : Kairos

Partners involved : Portsmouth, UBS, Ecotechnilin

Deliverable N° & name :

- 2.2.3 Production of a prototype advertising medium

Content

1 Context of activity 2 – WPT2

In this business, Kairos has developed new composite materials, with monolithic and sandwich structures, using a non-woven preform of lightly oriented flax fibres. This was manufactured by Écotechnilin using the Vandecandelaère scutching process. These materials are intended for use in point-of-sale advertising (POS). As a result, their surface condition must be smooth and free of visible defects in order to meet the aesthetic requirements of this field of application. The environmental footprint of these new materials is reduced thanks to their high potential for recyclability and compostability and biobased raw materials. Kairos must ensure that the materials meet the specifications imposed by the POP sector (machinability, aesthetic appearance, light weight, good mechanical properties, etc.), aesthetic appearance, light weight, good mechanical strength) while ensuring that they have good recycling recyclability (see deliverable 2.4.2). These materials are produced using the thermocompression process, which means short manufacturing cycle times and low processing costs. Numerous tests such as mechanical strength tests in different environments, UV ageing tests and scratch resistance tests were carried out to characterise the new material. The results obtained enabled a detailed technical data sheet to be drawn up for the material, enabling it to be compared with conventional petro-sourced materials (see deliverable 2.2.2). This deliverable presents the production of a prototype of a typical POP product made from the composite sheets produced previously. This is a proof of concept for a piece of POP furniture in order to demonstrate the robustness of the material for this field of application.



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2.1.2	Découpe.....	Erreur ! Signet non défini.
2.2	Résultat final	Erreur ! Signet non défini.



2 Production of a prototype POP display (Livable T2.2.3)

One of the five panels produced was used to create prototypes of a point-of-sale advertising stand. This support is a temporary piece of furniture used as a display stand, and was manufactured jointly with the Cloître company. Its production enabled the new composite material to be applied and its suitability for use in the production of point-of-sale advertising to be verified in terms of aesthetics, surface appearance, machinability, digital cutting and assembly.

2.1 Production process at Cloître

2.1.1 Printing

The first step in producing a POP part is to print the material. The black colour of the material does not affect the colours of the print. An initial coat of white paint is applied before the image or text is printed. Figure 1 shows the printing stage.

2.1.2 Cutting

Cutting is carried out using a milling machine, following the recommended parameters described in the technical data sheet. Figure 2 shows the cutting stage.



Figure 1 : Printing step

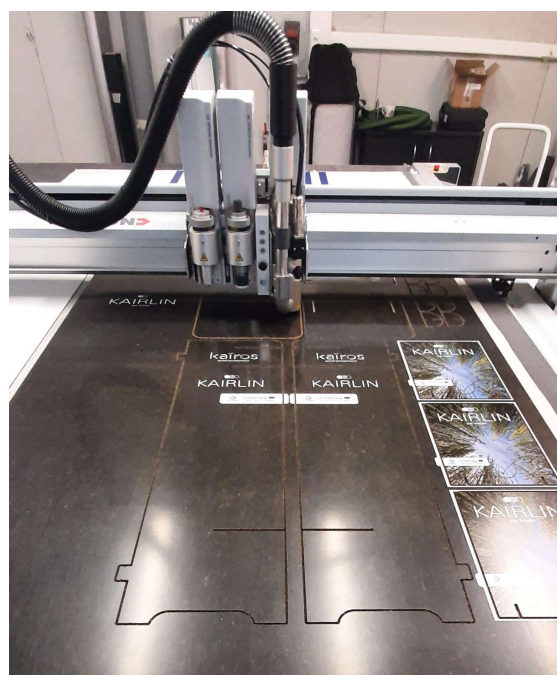


Figure 2 : cutting step

2.2 Final result

Following the production of a small prototype (Figure 3), a piece of furniture, shown in Figure 4, was made; this is a piece of furniture usually made from PVC. Although certain parameters need to be optimised, such as the cutting parameters, the material has completely fulfilled its function and can replace PVC.



Figure 3 : small prototype



Figure 4 : prototype of POP support

These prototypes (Figures 3 and 4) are therefore proof of a new concept in the manufacture of more environmentally-friendly POP advertising, since these new materials are bio-sourced and recyclable. What's more, the furniture proves that the material is of good quality and suitable for POP applications.