

CIRCULAR DESIGN PROTOTYPING

3D print filament spool

CHALLENGE

Preparing Circular Designed Prototype s(*CDP*)of filament spools for use in the Circular Economy. The 100% bio based filament spool should be able to be either 3D printed by home users or ordered completely assembled through a web shop in combination with the filaments.

SOLUTION

Flexible hybrid slicing 3D print technology on bio based laminated sheet materials like PLA reinforced fibre material and/or PLA based paper pulp material. Edges to be laser printed after 3D printing.

RESULTS

- Clean Tech production processes
- 100 % bio based materials
- Upcycling capability
- Combined laser technology on edgings
- Use of C2C certified PLA (silver)

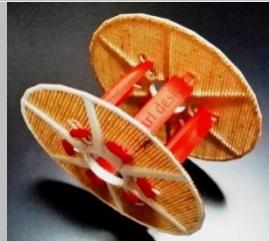


Figure 1



Figure 2

Key Facts

Partners	<i>Recyvac - Denekamp Bokhove -Nijverdal Ctrl Design -Nijverdal Saxion – Enschede (IMPT)</i>
Technologies	<i>thermo lamination laser cutting flexible hybrid slicing 3D printing</i>
Features	<i>Cradle to Cradle ®inspired HTL® Sizopreg® PLA bio plastic Design for Disassembly</i>
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