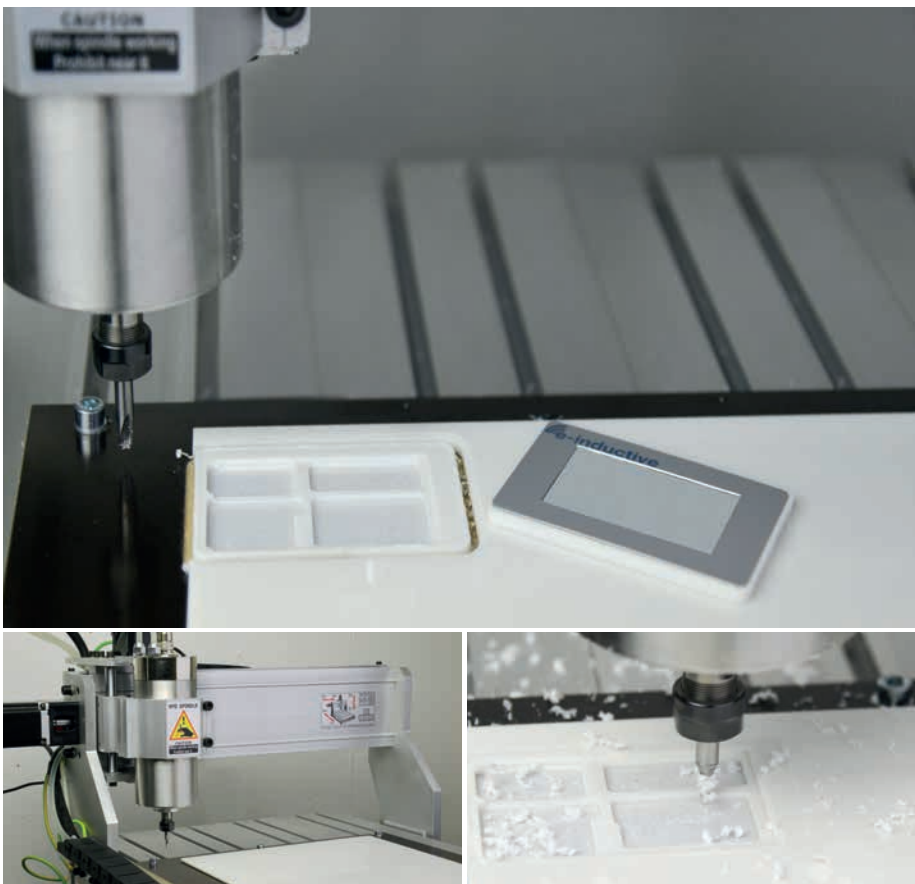


SIMOGREEN PLA-HT – Sustainable solution for manufacturing milled housings for electronic labels



Top: milled housing made of SIMOGREEN PLA-HT and a finished electronic label;
bottom left: placing the sheet in the milling machine; bottom right: milling process

e-inductive GmbH & Co. KG has extensive knowledge of the latest technologies for energy and data transfer. To manufacture the milled housing of its electronic labels, the company was searching for a sustainable material with an attractive appearance and good processing properties. SIMOGREEN PLA-HT stood out as the perfect product for this application.

The project at a glance

Project

Manufacture of milled housings made of SIMOGREEN PLA-HT for electronic labels

Requirements

- High rigidity
- High impact strength
- Attractive appearance
- Good, easy processing capability for milling
- Sustainability

Client

nevoLAB GmbH, Maierhöfen, Germany

Contractor

e-inductive GmbH & Co. KG,
Weiler-Simmerberg, Germany

Technical support

SIMONA AG, Technical Service Center

Products used

SIMOGREEN PLA-HT sheets,
2,000 mm x 1,000 mm x 4 mm

Duration of project

3 months



From left to right: electronic label with interface at the side; writing to the electronic label with a read/write device; written electronic label

SIMOGREEN PLA-HT – High-quality appearance and excellent milling properties

Initial situation

Conventional marking of objects with labels using paper is time-consuming and environmentally unfriendly – and it can often only be performed once. Compared to paper-based solutions, information on an optical carrier can be altered easily any number of times. The potential applications for electronic labels vary enormously. Customer-specific solutions from e-inductive are already being used, for example, as personalised visitor ID cards or in warehouse management for the unique identification of products.

nevoLAB GmbH supplies innovative, customised solutions aimed at simplifying workflows in the fields of laboratory automation and laboratory data management. For the identification of samples e-inductive was commissioned to develop an electronic label for nevoLAB, with the aid of which, alongside RFID technology in use, visual information can be added.

Task

An electronic label is made up of a plastic housing, an ePaper display and an aluminium frame that can be printed on thermally. As an alternative to ABS, production of the milled housing was to use a top-quality plastic with high rigidity, high impact strength, good appearance and easy processing capability. The sustainability of the material was also very important to e-inductive in their search for a suitable plastic.

Solution

At that time SIMONA had successfully completed initial production trials with the new material PLA-HT and was able to provide e-inductive with samples of sheet material which had exactly the properties required.

Compared to ABS, SIMOGREEN PLA-HT is easier to mill, as a result of which it was possible to minimise material fraying and optimise production times. The sheets were also impressive because of their high rigidity and attractive appearance. SIMOGREEN PLA-HT is classified as a biobased plastic so it was also able to fulfil the requirement for a sustainable material.

SIMOGREEN PLA-HT

Properties

- High rigidity
- High impact strength
- High heat deflection temperature
- Attractive appearance
- Easy processing
- Sustainability

Fields of application

- Thermoforming
- 3D printing
- Exhibition stand design

Product range

- Extruded sheets
- Welding rods
- 3D filaments

Further information

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