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

**The project at a glance**

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<th>Manufacture of milled housings made of SIMOGREEN PLA-HT for electronic labels</th>
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| 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 |

**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.
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.

Further information
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