

PRESS INFORMATION

EMS-GRIVORY with three first places among the winners at the last SPE Automotive Award Night!

At the last SPE Automotive Award Night of the «Society of Plastics Engineers», EMS-GRIVORY was once again among the award winners – three times! The award-winning applications made of EMS high-performance polymers show once again how close customer co-operation can lead to innovative solutions that allow customers to save costs and weight.

Electric water pump – Maximum reliability in continuous operation

In the «New Mobility» category, the electric water pump with housing, connection covers and impeller made of various Grivory HT1 materials took first place. The electric water pump from HELLA GmbH is used in the thermal management of electric and hybrid vehicles, where it pumps the coolant in the various heating and cooling circuits in an energy-saving manner. To ensure a service life of >30,000 hours in the coolant temperature range of -40°C to +90°C, various Grivory HT1 materials were selected. The connection cover with hose connections, pump housing and impeller are made of special hydrolytically stable Grivory HT1 materials. The printed circuit board cover, made of Grivory HT1, protects the underlying electronic components through electro-friendly stabilization. Decisive for the use of Grivory HT1 materials in this application were the long-term resistance to coolants and the very good dimensional stability.

Electro-pneumatic brake control module - Robust and safe

This module took first place in the category «Electronical/Optical Part». The innovative electro pneumatic brake control module forms the «control center» in the braking system for truck trailers and controls all safety-relevant functions. The brake control module from Haldex Brake Products Ltd. is designed to withstand operating pressures of up to 10 bar at temperatures ranging from -40°C to 80°C. The module carrier, made of Grivory HT1, is subject to high vibrations during operation and is attached to the trailer at three attachment points. The valve body and auxiliary/module components made of Grivory HT1 are produced to a tight tolerance and must have a high surface finish quality in the sealing area to reduce seal wear. The control module of the spring brake control valve (SBCV) is made almost entirely of EMS material. The Grivory HT1 cover is welded to the manifold. The SBCV is operated by a main piston made of Grivory TSG and a secondary piston made of Grilamid 2D. The check valve bracket of the SBCV is made of unreinforced Grilon TSS and is equipped with snap hooks for quick assembly or disassembly. The decisive factor for the use of the various EMS materials was the reliable functioning of the safety-relevant components during long-term testing.

Center console support structure – Dimensional accuracy at the highest level

First place in the «Body Interior» category went to the supporting structure of the center console made of Grivory GVS for KDK Automotive GmbH. Here, the homogeneous deep black appearance of Grivory GVS meets the high visual requirements for the partial visible surfaces of the component

without additional painting. The very good flow properties of Grivory GVS enable the complicated mold geometry to be filled reliably during injection molding. The tight installation space places high demands on the dimensional accuracy of the component. This is where Grivory GVS scores with its low moisture absorption and the associated high dimensional stability even after climate change tests. Decisive for the use of Grivory GVS was the high stiffness, the very good flow behavior, the excellent surface quality and the high dimensional stability of the component.

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Electric water pump



Electro-pneumatic brake control module



Structural Support Center Console

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