

## **PRESS INFORMATION**

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### ***Press release K2010 Preview***

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### **High-performance polyamides shine – from a genial design to environmentally compatible automotive parts**

At the K2010, Stand E61 in Hall 6, EMS-GRIVORY presents a series of new high-performance polyamides which supplement the existing portfolio in focus segments. At the end of October a further PPA production line in Domat/Ems will be inaugurated. With these high-temperature polyamides, more stringent under-the-bonnet requirements can be satisfied. New grades in the Grilamid TR family enable creation of filigree structures while, at the same time, having highest stiffness values. Reinforcement with long carbon fibres increases the scope of application of polyamides for highly stressed components.

#### **40% increase in PPA capacity at Ems**

Based on the sustained demand for Grivory HT, construction work has been enormously accelerated so that the new plant can be start operation 6 months earlier than planned.

With this new plant, EMS production capacity for PPA will be increased by 40%. In this way EMS is reacting to the strong demand for metal replacement and will further strengthen its position as market leader for polyphthalamides.

#### ***spiderweb* - Design meets functionality**

Something special can be created when patterns of thought are completely restructured. This is how the Italian designer Jozeph Forakis from Milan works. He breathes new life into supporting structures. In cooperation with EMS-GRIVORY Forakis was able to realise his idea *spiderweb* using transparent polyamide Grilamid TR 90. The three-dimensional single element has an extremely simple and filigree form. Due to the ingenious construction of the *spiderweb* elements, furniture or structures made of them, have outstanding

stability and unexpectedly high comfort. Visitors to the trade fair can see this for themselves with the *spiderweb* objects on view.

### **A talent for optic**

The new materials Grilamid TR 90 TL and TR 90 NZZ have different talents although both of these polyamides have been developed to satisfy increased requirements for glasses frames. Thanks to its very high strength and excellent resistance to stress cracking, Grilamid TR 90 TL enables filigree designs to be manufactured, thus accommodating current fashion trends. This material also has good processing properties, which allows realisation of very thin-walled designs. Grilamid TR 90 NZZ is characterised by exceptional impact strength - an important factor for sports glasses to provide required eye protection from blows or flying parts.

### **New LFT materials for highly stressed components**

Another innovation to be presented at the trade fair are the high-performance materials based on Grivory G and Grilamid L reinforced with long carbon fibres. These so-called LCF polyamides provide significantly improved mechanical properties. In comparison to conventional carbon-fibre reinforced polyamides with the same density, stiffness values are increased by nearly 60% and tension at break values by more than 70%. The LCF polyamides from EMS-GRIVORY are therefore excellently suited for applications in the challenging field of sport articles, such as bicycle components, rackets for ball games and assembly components for water sports. In addition, they can also be used as conductivity modification for other materials. The addition of 10% LCF-PA (which corresponds to around 3% long carbon fibres in the end product) already allows a surface resistance below  $10^9 \Omega$  to be achieved. This limiting value is necessary, for example, for the manufacture of anti-static components in applications in potentially explosive atmospheres or for electrostatic powder coating. In contrast to materials which are modified with conductive carbon black, components modified with LCF-PA do not become brittle.

### **Continuing success stories**

New material grades are catching the focus in the two product families Grilamid TR and Grilon TS, where the highly transparent evergreen Grilamid TR 55 and the very stress-crack resistant Grilamid TR 90 are now joined by Grilamid TR 30. This product combines high strength with good impact resistance while providing

a very high surface hardness with improved scratch and wear resistance. Resistance to non-polar media makes the new Grilamid TR 30 especially suited for applications in contact with automotive and industrial fluids. Typical applications include filter housings, flow meters or sight glasses. In addition, it offers numerous possibilities for replacement of glass.

The product series Grilon TS is being supplemented: The second generation of Grilon TS has improved heat stability which means that the material can be used at even higher operating temperatures. All grades of the new product group have 10°C higher permanent use temperatures as well as allowing higher, short-term peak temperatures. These improvements in the property profile make it possible to satisfy high requirements related to steadily increasing temperature profiles for under-the-bonnet applications.

### **Environmental compatibility and sustainability**

EMS-GRIVORY makes a contribution towards sustainability with a variety of its materials. The product series GreenLine includes polyamides which are made partially or completely of renewable raw materials and which, due to their equal mechanical and chemical properties, can be used to replace conventional polyamides. GreenLine materials make an important contribution towards saving crude oil resources during the manufacture of mobile telephones. The GreenLine product portfolio includes PA grades such as transparent Grilamid BTR, the polyphthalamide Grivory HT3 and Grilamid S. In this way, for example, stiff casings for mobile telephones, displays or plug connectors can be realised.

### **For body and soul**

Along with new products, established procedure will also be followed at the EMS-GRIVORY stand. On October 28, the polyamide specialist invites visitors to celebrate when the Joe Whitney Band again creates a party feeling. A slightly quieter atmosphere can be enjoyed by trade fair visitors at the EMSpresso-Bar and at the Happy Hour each evening from 19.00 hrs at the nearby hotel boat.

### **EMS-GRIVORY**

K2010

Hall 6

Stand E61

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*Due to excellent stiffness values, even highly stressed components such as this Look bicycle pedal, can be manufactured from high-performance materials based on Grivory GV and Grilamid L reinforced with long carbon fibres.*



*Turbo-charged air cooler made of Grilon TS.*

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