

## **PRESS INFORMATION**

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### **New long-chain polyamides from EMS-GRIVORY**

**Short-chain polyamides such as polyamide 6 or polyamide 66 are technically unsuitable for many applications. For example, they absorb too much water or have too little chemical resistance. In cases like this long-chain polyamides such as Grilamid L PA12 or the new Grilamid 2D PA612 provide a solution.**

At the Fakuma 2011, EMS-GRIVORY will be presenting its range of long-chain polyamides supplemented with a new series of products based on polyamide 612 (PA612), which are manufactured from the raw materials hexamethylene diamine and dodecanedioic acid (DDDA). EMS-GRIVORY has manufactured PA612 for some time now, however, this polymer is mainly used in an unmodified form for filaments and hardly marketed as technical plastics in the shape of specifically formulated compounds.

With the new compounds in the Grilamid 2D (PA612) series, the group of long-chain, semi-crystalline polyamides including Grilamid L PA12, Grilamid 1S PA1010 and Grilamid 2S PA610 significantly expanded. In contrast to Grilamid 1S and Grilamid 2S, Grilamid 2D PA612 is made of conventional, crude oil based raw materials and does not belong to the family of bio-based polyamides from EMS-GRIVORY (GreenLine).

#### **New in the product range: Grilamid 2D PA612**

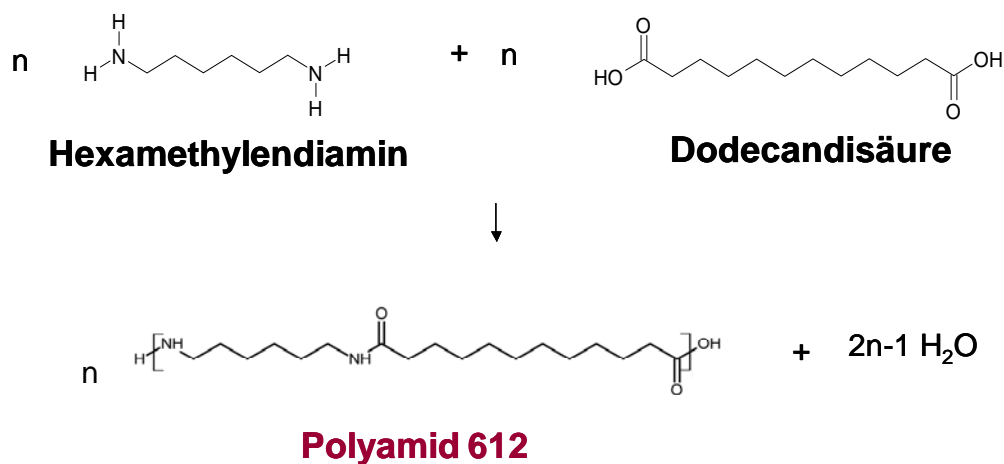
Among other uses, Grilamid 2D PA612 products have been developed for automotive applications. The new assortment is made up of injection-moulding products with 30 to 50 % glass fibres as well as a variety of non-reinforced grades for injection moulding and extrusion, including high-viscosity and impact resistant grades as well as those containing plasticizers for the extrusion of pipes. Typical applications for these new products are connectors for automotive media lines for air, oil, fuel and cooling systems. Grilamid 2D PA612 from EMS-GRIVORY stands out with its high resistance to hydrolysis, a property which is of central importance for cooling-system components of cars and goods vehicles.

Grilamid 2D PA612 can really be seen as a supplementary product in the market for polyamide 12. When PA612 is compared to PA12, the significant differences are the clearly higher melting point, better stiffness - especially in a dry state - and the clearly higher water uptake in a saturated condition.

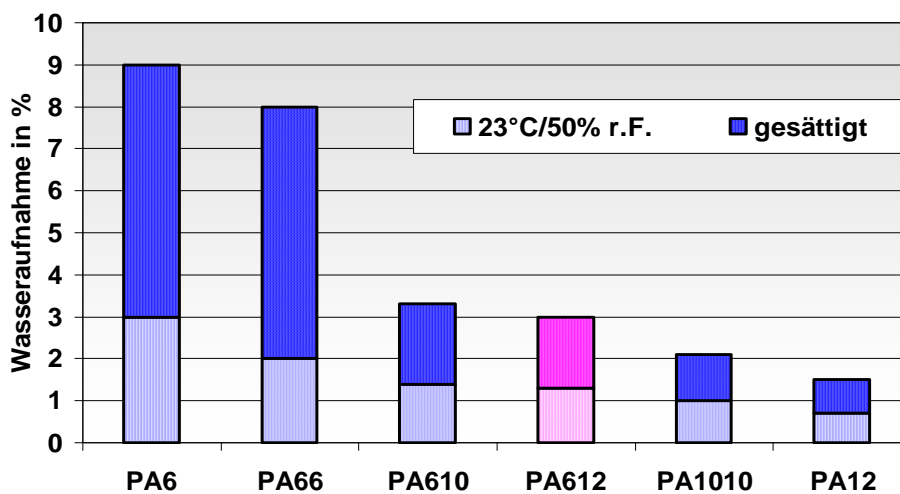
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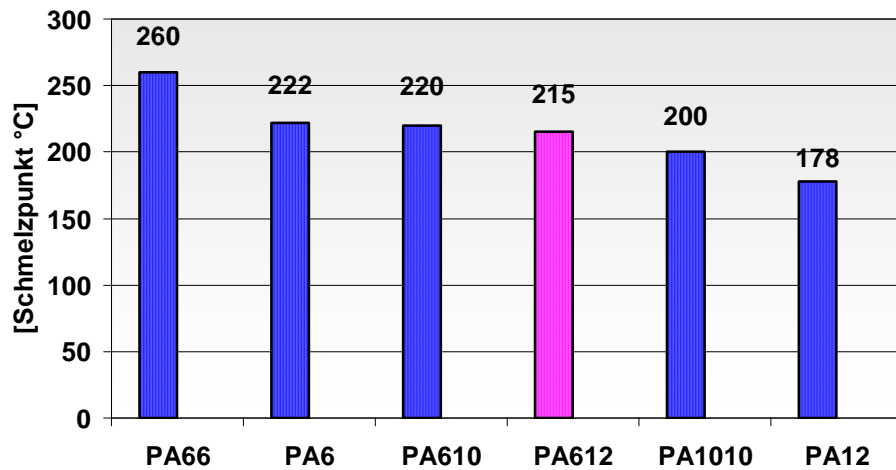
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Reaction diagram of the conversion of hexamethylene diamine and dodecanedioic acid to the new Grilamid grade 2D PA612.



Compared to standard polyamides (e.g. PA6 or PA66), the new grade PA612 shows clearly lower water uptake - only slightly higher than PA1010 or PA12.



*The 215°C melting point of the new Grilamid 2D PA612 makes this material extremely well suited for automotive media feed lines.*



*Plug-in connectors for media lines are a typical example of a Grilamid 2D PA612 application. Use of this material provides greater freedom of design and, due to the excellent hydrolysis resistance, greater durability.*



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