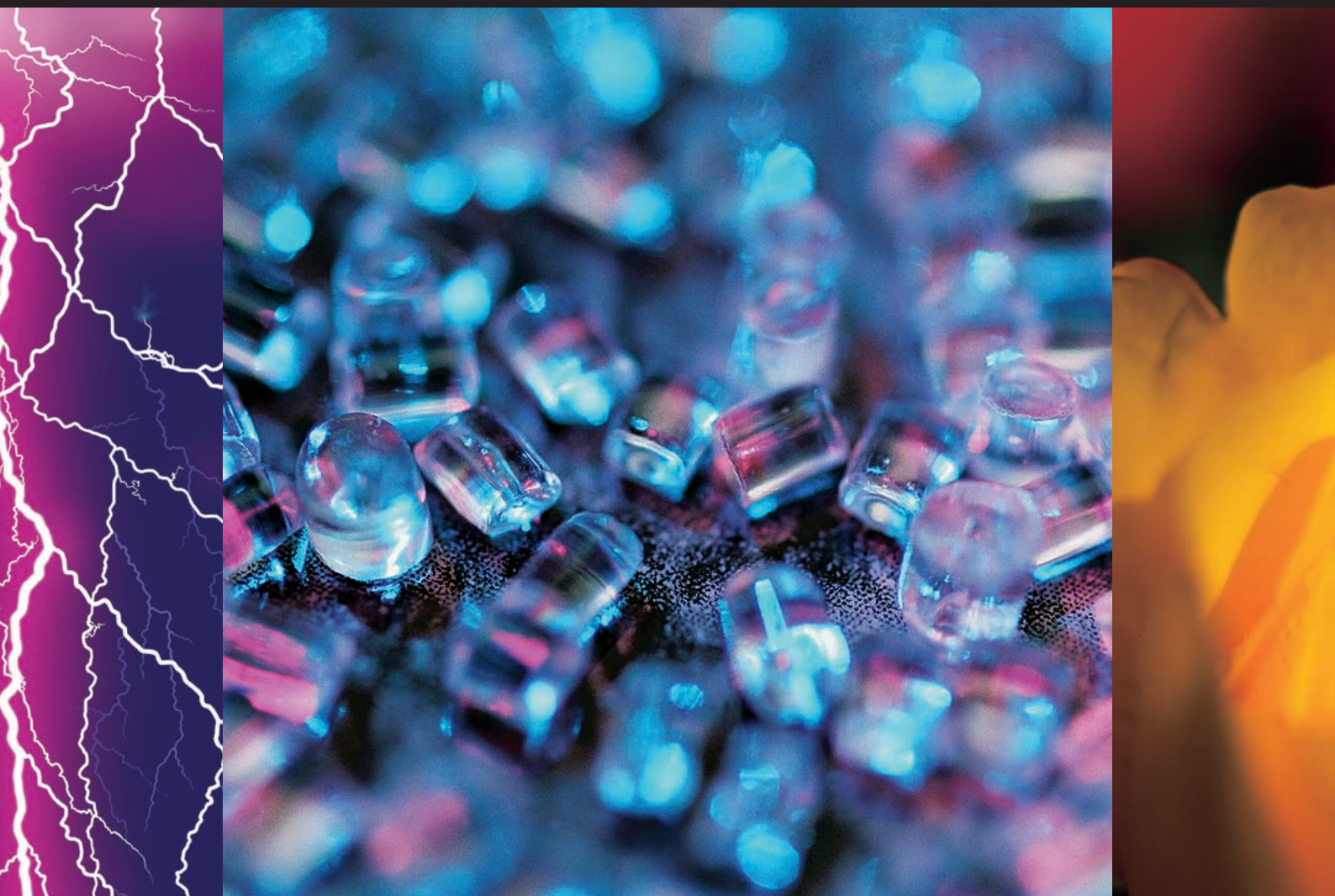


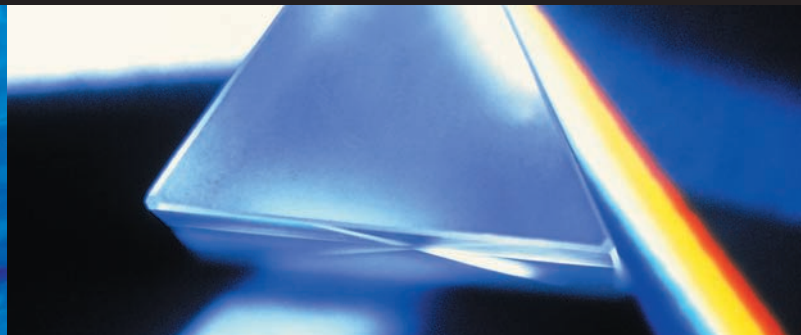


**Your development partner
for tailor-made solutions**



2

Grilamid PA 12 and TR



Grilamid PA 12

Engineering polymers for the highest demands

EMS-GRIVORY sells its polyamide 12 products under the brand name Grilamid®. This engineering plastic has proved its worth for more than 30 years in various demanding applications. Grilamid is formed by polycondensation of laurolactam, a monomeric raw material based on crude oil.

Grilamid combines exceptional properties such as:

- high impact strength
- good weathering resistance
- good resistance to chemicals
- excellent abrasion and surface slip characteristics
- minimal water uptake and good dimensional stability
- lowest density of any commercially available polyamide
- excellent impact strength at low temperatures
- good barrier properties

Grilamid is particularly well suited for processing by injection-moulding, extrusion or blow-moulding processes.

Typical application areas for Grilamid are the fields of automotive, electrical and electronic, packaging, leisure, sport and mechanical engineering.

The excellent properties of Grilamid are imparted by the chemical structure of polyamide 12. Through the addition of additives, fillers, fibres and processing aids, EMS-GRIVORY can also satisfy special market requirements. These include, for example, highly filled, high-performance grades for the manufacture of polymer bonded magnets.

Grilamid TR

Transparent polyamides with unlimited possibilities

Transparent polyamide materials from EMS-GRIVORY are sold under the trade name Grilamid TR®.

Grilamid TR grades are transparent, thermoplastically processable polyamides based on aliphatic and cycloaliphatic components, which exhibit a range of noteworthy properties.

The property profile of Grilamid TR comprises a combination of exceptional properties such as:

- good transparency, even at high wall thickness
- good, light inherent colour
- toughness
- stiffness
- low flammability
- low water uptake

These polymer construction materials have already been used successfully for a long time in very different fields, including high-performance technical components for consumer goods in daily life.

We are able to make a precise evaluation of application possibilities through our extensive knowledge of the behaviour of polyamides under mechanical and thermal stressing, exposure to weathering and to chemicals. In order to characterise each product comprehensively, a variety of inspection and test procedures is carried out in the modern laboratories of EMS-GRIVORY - usually in close co-operation with our customers.



Grivory HT

Higher performance under extreme temperatures

Grivory® is the trade name of a group of engineering plastics manufactured and marketed by EMS-GRIVORY. Grivory HT is a semi-crystalline thermoplastic construction material based on polyphthalamide (copolyamides PA 6T/6I and PA6T/66).

Grivory HT is characterised by a high performance property profile. Technical injection moulded parts made of this material have impressive dimensional stability, even at high temperatures. The property profile of Grivory HT overlaps the performance range of more exotic plastics. The values of Grivory HT for properties such as stiffness and strength at application temperatures up to 120°C - important for their placement of metals - surpass those of materials such as PPS or PEEK.

Grivory HT is used for the manufacture of technical components which are characterised by:

- stiffness and strength at high application temperatures
- property values which are influenced very little by water uptake
- good dimensional stability and a low tendency to warp
- good resistance to chemicals
- good surface quality
- efficient and cost-effective manufacture

Grivory G

The economic alternative material to die-cast alloys

Grivory® is the trade name of a group of engineering plastics manufactured and marketed by EMS-GRIVORY. The materials in this group are based on combinations of semi-crystalline and partially aromatic polyamides. Grivory is available in granular form for processing using injection moulding or extrusion processes in conventionally available machines and equipment.

Grivory is used for the manufacture of technical components which are characterised by:

- high stiffness and strength
- property values which are influenced very little by the uptake of moisture
- good dimensional stability and low warpage
- low absorption of moisture and water
- good resistance to chemicals
- good surface quality
- efficient and cost-effective manufacture

The Grivory grades differ in the type and composition of their base polymers as well as their modification with stabilisers, processing aids and reinforcement (minerals, glass, carbon and steel fibres).



4

Grilon and EMS-GRIVORY worldwide



Grilon

The Classic Product

Grilon® is the trade name for engineering plastics manufactured by EMS-GRIVORY and based on polyamide 6 and polyamide 66. The construction materials of this group are semi-crystalline polyamides and are characterised by the following properties:

- high strength and stiffness
- high impact strength
- high heat distortion temperature
- good abrasion and slip properties
- resistance to a wide range of chemicals
- good electrical properties
- economical processability

Grilon is particularly well suited for processing using injection-moulding, extrusion and extrusion blow-moulding processes.

Due to their excellent property profiles, these materials are used in a wide variety of applications such as automotive, electrical and electronic, sport and leisure as well as mechanical engineering.

Grilon grades differ in the type and composition of their base polymers as well as their modification with stabilisers, processing aids and reinforcement (minerals, glass, carbon and steel fibres).

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