

### **Chemical Intermediates**







# **Coatings + Additives**





## **Technical Fibers + Yarn**





### Our products

Our customers can rely on our longtime experience in research and development, efficient and expert advice and consistent product quality. They benefit from our global presence with modern application laboratories and pilot plants, where new specialties and applications are continuously developed.

#### Grilbond

Bonding agents supplied as ready-to-use dispersions based on blocked isocyanates. They guarantee maximum adhesion between reinforcing fabric/cord (made out of various materials, e. g. polyesters and polyamides) and rubber.

#### Grilonit

Reactive diluents and hardeners for epoxy systems. Applications can be found in various segments of the building, construction and coating industry as well as in the synthesis of specialty chemicals and high performance composites.

#### Primid

Crosslinkers for weather-resistant powder coatings, which allow the manufacture of economic, ecological and climate-friendly, as well as solvent-free coating systems.

#### Griltex

Thermoplastic adhesives for technical and textile bonds. The melting range and melt viscosity of the copolyamides and copolyesters can be specifically adjusted to suit customer requirements. Griltex adhesives are available as granules or powder in various particle sizes and are manufactured in our own polymerization and grinding plants. In the portfolio, we have new materials for Additive Manufacturing based on polymers, primarily for powder based 3D printing technologies.

#### Grilon

Technical fibers and thermoplastic special yarns. The product portfolio ranges from fusible bonding fibers made from copolyamides and copolyesters including bicomponent fibers, to abrasion-resistant polyamide fibers, e.g. for the paper machine industry. Our thermoplastic copolyamide and copolyester multifunctional yarns are used for the modification of textile structures and to stabilize prepregs for composites. This results in higher-quality products, shorter production times and lower unit costs.

#### Nexylon

High performance PA66 fibers are processed to high quality nonwovens and spun yarns. Important application areas are abrasives, technical textiles and workwear garments.

#### Nexylene

Technical fibers made of polyphenylene sulfide (PPS) for hot gas filtration.



#### **Customer applications**

#### High performance tires

Grilbond is used in tires to ensure a high quality adhesion between rubber and reinforcing fabric, even under the most severe conditions. Grilbond is also used for conveyor and power transmission belts as well as in reinforced rubber hoses. Using Grilbond, our customers benefit from safe handling as well as savings in energy, material and production costs.



## Construction protection and renovation

Grilonit reactive diluents and hardeners are important components of modern epoxy-based construction materials. They are used in the building and construction industry, as components of composites, adhesives and as creative raw materials in synthesis chemistry.



#### **Efficient industrial coatings**

Primid allows the cost-effective and toxicologically harmless manufacture of durable and weather-resistant powder coatings. This highly efficient and, at the same time, environmentally friendly powder coating technology is used in architectural applications such as facade panels or window frames, agricultural and construction machines, household appliances as well as in the automotive industry.



#### **Technical bonding**

Griltex adhesives are thermoplastic hot-melt adhesives for use in various technical and textile applications as well as in the fields of transportation, construction, electronics, packaging, medical, composites and fashion. They are used for bonding, coating and laminating of technical textiles, nonwovens, apparel textiles and even surfaces, such as metal or plastics.



Additive manufacturing 3D printing is an innovative manufacturing method for use in personalized ortheses and dental aligners as well as challenging automotive parts, sport consumer goods and other industrial applications.



#### **Fiber applications**

Our fibers are used in applications where most other polymers fail: As the main component of paper machine felts, which are exposed to heat, chemicals, pressure and friction for weeks. In abrasives, based on nonwovens finished in aggressive synthetic resin baths. In protective clothing which is comfortable to wear while withstanding toughest use without tearing. The fiber properties can be modified innovatively during the manufacturing process. In this way we provide our customers with a wide assortment of technical textiles.



#### Thermoplastic special yarns

Grilon yarns are real multi-functional yarns. They are used as separation, bonding and reinforcing yarns. The main application area is the manufacture of high quality apparel. Our yarns are essential in numerous technical applications such as reinforcement of textile fabrics in the fields of sport, medical technology and automotive sector as well as bonding yarns, toughener for thermosets and matrix yarns for thermoplastic composite materials.





#### About us

EMS-GRILTECH is a Business Unit of the EMS Group and has around 300 employees worldwide. We develop, manufacture and sell outstanding specialty products for technically demanding applications and create added value for our customers.

We are globaly active with our own sales companies, local agents and distributors. The headquarters, with research, development and production, is located at Domat/Ems (Switzerland). In addition we have state-of-the-art customer service laboratories, application development centers and production facilities in Germany, the USA, China, Taiwan and Japan.

EMS-GRILTECH consistently develops new products and applications. Our competent, global technical support offers unique and tailor-made customer solutions. Thus, we are generating measurable benefits and helping our customers to achieve long-term market success.

#### Visit us at: www.emsgriltech.com

#### Switzerland

EMS-CHEMIE AG Via Innovativa 1 7013 Domat/Ems Switzerland Phone +41 81 632 72 02 Fax +41 81 632 74 02 info@emsgriltech.com

#### Germany

EMS-CHEMIE (Neumünster) GmbH & Co. KG Tungendorfer Str. 10 24536 Neumünster Germany Phone +49 4321 302 500 Fax +49 4321 302 511 info@de.emsgriltech.com

#### China

EMS-CHEMIE (Suzhou) Ltd. 227 Songbei Road Suzhou Industrial Park Suzhou 215126, P.R. China Phone +86 512 8718 40 63 Fax +86 512 8666 81 83 info@cn.emsgriltech.com

#### Taiwan

EMS-CHEMIE (Taiwan) Ltd. 36, Kwang Fu South Road Hsin Chu Industrial Park Fu Kou Hsiang, Hsin Chu Hsien 30351 Taiwan, R.O.C. Phone +886 35 985 335 Fax +886 35 985 731 info@tw.emsgriltech.com

#### Outlook for the future

EMS-GRILTECH is well-prepared to satisfy customer demands with regard to sustainability, high recyclability and increased use of renewable raw materials.

Our production is energy and resource efficient and constantly reduces the  $CO_2$ footprint at our locations. Since July 1, 2020, the EMS Group worldwide production has been  $CO_2$ -free through a biomass power station and hydroelectricity.

As a globally active company, the EMS Group is committed to sustainable and long-term strategic development.

#### Japan

EMS-CHEMIE (Japan) Ltd. Kanden Fudosan Umeda Shinmichi Bldg. 1-1-5, Dojima, Kita-ku Osaka 530-0003, Japan Phone +81 6 6348 1655 Fax +81 6 6348 1702 info@jp.emsgriltech.com

#### **United States**

EMS-CHEMIE (North America) Inc. 2060 Corporate Way P.O. Box 1717 Sumter, SC 29151-1717, USA Toll free +1 877 367 8323 Phone +1 803 481 61 90 Fax +1 803 481 61 29 welcome@us.emsgriltech.com



