RHENOFLEX GMBH

Foundation
- 1952
- Acquisition by a German private equity house in 2015

Employees
- 291 FTE

Branches
- Footwear
- Cosplay
- Sports
- Automotive

R&D focus
- Connecting ecology and economy
- Closed-loop production
- Recycling

Key materials
- Bio-based polymers
- Recycled polymers
- Renewable raw materials

Key products
- Thermoplastic sheets
- Adhesive films & coatings
- Masterbatches
- Zero waste products
- Service production

Key technologies
- Powder technology
- Rhenoprint™
- Extrusion
- Lamination
- Impregnation

Rhenoflex

Company

Rhenoflex was founded 1952 as subsidiary of Giulini Brothers in Ludwigshafen, Germany. In 2015 it was acquired by a German private equity house and, hence, started as an independent company. As **designer**, **manufacturer** and **distributer** of innovative shoe components, its main focus lies on **customized thermoplastic sheet materials, adhesives** as film or powder and **masterbatches** for shoes, orthopaedics, bag production and others.

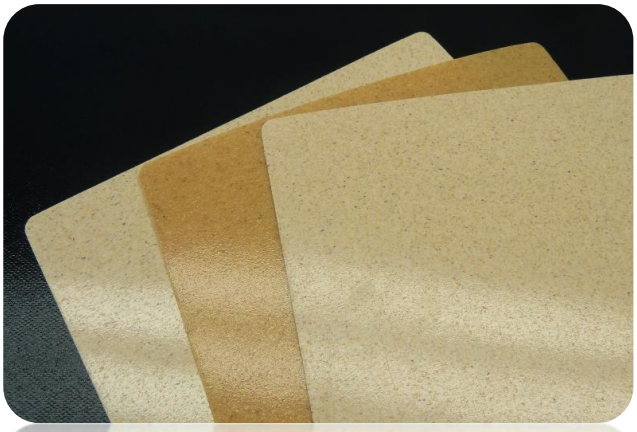
Branches and techniques

For decades now, Rhenoflex has been active in other industries besides the classic shoe business as well. In German and Asian production facilities, Rhenoflex processes textile carriers and thermoplastic raw materials with great experience by using following techniques:

- **Extrusion of thermoplastic films and composite sheets**
- **Extrusion coating and co-extrusion**
- **Powder sintering and powder coating**
- **Impregnation with liquid dispersions**
- **Lamination and coating with hot-melting adhesives**
- **Closed-loop and zero-waste production**

Recycling and closed-loop production

Rhenoflex follows two recycling approaches: On the one hand, **residues of our own products** processed at Rhenoflex or at customer companies are collected and either partly reused in our standard materials or applied in our special developed **R-Line materials**, which contain up to 80 % recycled resources. On the other hand, Rhenoflex pursues closed-loop production processes with and for customers. **Mixtures of different production wastes** (e.g. textiles, thermoplastic residues, foams etc.) from different industries can be transformed into **newly developed high-quality products** according to customer demands.



RHENOFLEX GMBH

Contact

Rhenoflex GmbH
Giulinistraße 2
67065 Ludwigshafen/Rhein
Germany
www.rhenoflex.de

Contact persons

Dr. Gunter Scharfenberger
CTO
g.scharfenberger@rhenoflex.com
+49 621 5790 - 6344

Dr. Mercedes Bohnwagner
Sustainability Manager
m.bohnwagner@rhenoflex.com
+49 621 5790 – 6531

We are looking forward to getting into contact with you!

Biomaterials

Many of Rhenoflex' products are not only based on **renewable raw materials**. Three of our product lines are also certified as completely **biodegradable** (compostable) according to ISO 14855.

Material properties like **biodegradation, weight, optics, haptics,** and **mechanical performance** as well as **product price** can be adjusted and optimized according to customer request. Rhenoflex Research Laboratories have developed a process which allows for easy formulation customisation. It is possible to add **from 5 up to 60 weight-% bio-based fillers** with or without pre-drying. Beside Rhenoflex' in-house manufacturing by using extrusion and powder sintering techniques, all Rhenoflex compounds can be processed by **sheet extrusion, injection** as well as **compression moulding**.

Successfully tested bio-fillers

- Wood powder
- Corncobs powder
- Rice husks
- Straw
- Hazelnut powder
- Apricot seeds powder
- Cherry seeds powder
- Natural fibres like hemp, flax and others
- Grape pulp
- Peat
- Leaves
- Grass
- Coffee waste
- Shells of crustaceans
- Bamboo
- Cactus leaves
- Olive seeds