

**Acid-proof membranes.
More safety in environmental and object protection.**



**Rhepanol® O.R.G.
and Rhepanol® O.R.F.**

Because a single drop can be too much.



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Rhepanol® acid-proof membranes stop aggressive substances. Guaranteed!

Industrial production and active environmental protection are no longer a contradiction. With Rhepanol acid-proof membranes, FDT is offering companies from various industries adequate solutions for reliable protection against infiltration of the soil and ground water by aggressive substances. Therefore, just like highly integrated filtering systems, Rhepanol acid-proof membranes are an essential component for the protection of our environment against irreparable damage.

Rhepanol O.R.G. and Rhepanol O.R.F.:

Effective barriers against chemically aggressive and water-contaminating substances

Based on polyisobutylene (PIB) **Rhepanol O.R.G.** and **Rhepanol O.R.F.** unobtrusively protect concrete and steel substrates. Both acid-proof membranes are permanently flexible and highly resistant to acids, alkaline solutions, salts and saline solutions, oxidising substances and other chemicals with which they come into direct contact, up to temperatures of 80 °C (depending on the media). When overlaid with acid-resistant ceramic/carbon bricks/tiles, they show significantly increased operating heat resistance.

Officially approved protection

Having the general approval for construction use, **Rhepanol O.R.G.** (Z-59.21-22) and **Rhepanol O.R.F.** (Z-59.21-196) are approved as sealant layers in accordance with the AGI-S10 Worksheet, Part 2, for protection against water-contaminating substances in accordance with WHG §19.

Range of application

Acid-proof membrane		O.R.G.	O.R.F.
Substance temperature	high	✓	
	average	✓	✓
	low	✓	✓
Substance concentration	high	✓	
	average	✓	✓
	low	✓	✓
Electrical testing			✓
Seam welding	hot air	✓	✓
	solvent welding	✓	✓

Application areas

- **Chemical industry**
 - Sulphuric acid production plants
 - Phosphoric acid production plants
 - Production rooms/equipment
 - Fertiliser production
- **Pharmaceutical industry**
 - Production
 - Filling
- **Metal industry**
 - Stainless steel pickling
 - Galvanising
 - Metal pickling
- **Pulp and paper industry**
- **Food and beverage industry**
 - Meat products
 - Dairy products
 - Breweries
 - Soft-drink production
- **Large-scale catering**
- **Textile industry**
 - Dyeing plants
- **Waste water industry**
- **Collection tanks and areas**
- **Glass industry**



Sulphuric acid production plant at the company Fert Iberia (Huelva, Spain).



APPLICATION AREAS FOR RHEPANOL O.R.G.

Protection of e.g.

- waste water tanks (neutra, detoxication)
- storage facilities for water-contaminating substances with respective collectors
- collectors for water from fire fighting in industrial areas
- pickling basins, especially for stainless steel
- apparatus and reactor lining, e.g.
 - flue gas cleaners in garbage incinerating plants
 - bleaching towers in the pulp industry
 - phosphate disintegration vessels for phosphoric acid production
- smoking equipment
- absorption towers for sulphuric acid production
- acid channels and many more

Sustainable protection for our environment

The **Rhepanol O.R.G.** acid-proof membrane has been successfully used for decades in acid protection throughout the world. In companies of all different industries, millions of square metres of **Rhepanol O.R.G.** have proven themselves to be extremely reliable even under the hardest of conditions.

Rhepanol® O.R.G. acid-proof membrane: Tested by the chemical industry.



A solid basis

The **Rhepanol O.R.G.** membrane is primarily used as a chemical-resistant sealant underneath brick and tile linings made of acid-resistant ceramics and hard-burnt carbon bricks.

Rhepanol O.R.G. contains functional carbon-based aggregates, making it electrically conductive. When used in conjunction with an electrically conductive tiling material, it is possible to produce electrostatically non-chargeable flooring for potentially explosive zones that will reliably protect the substrate from chemicals at the same time.

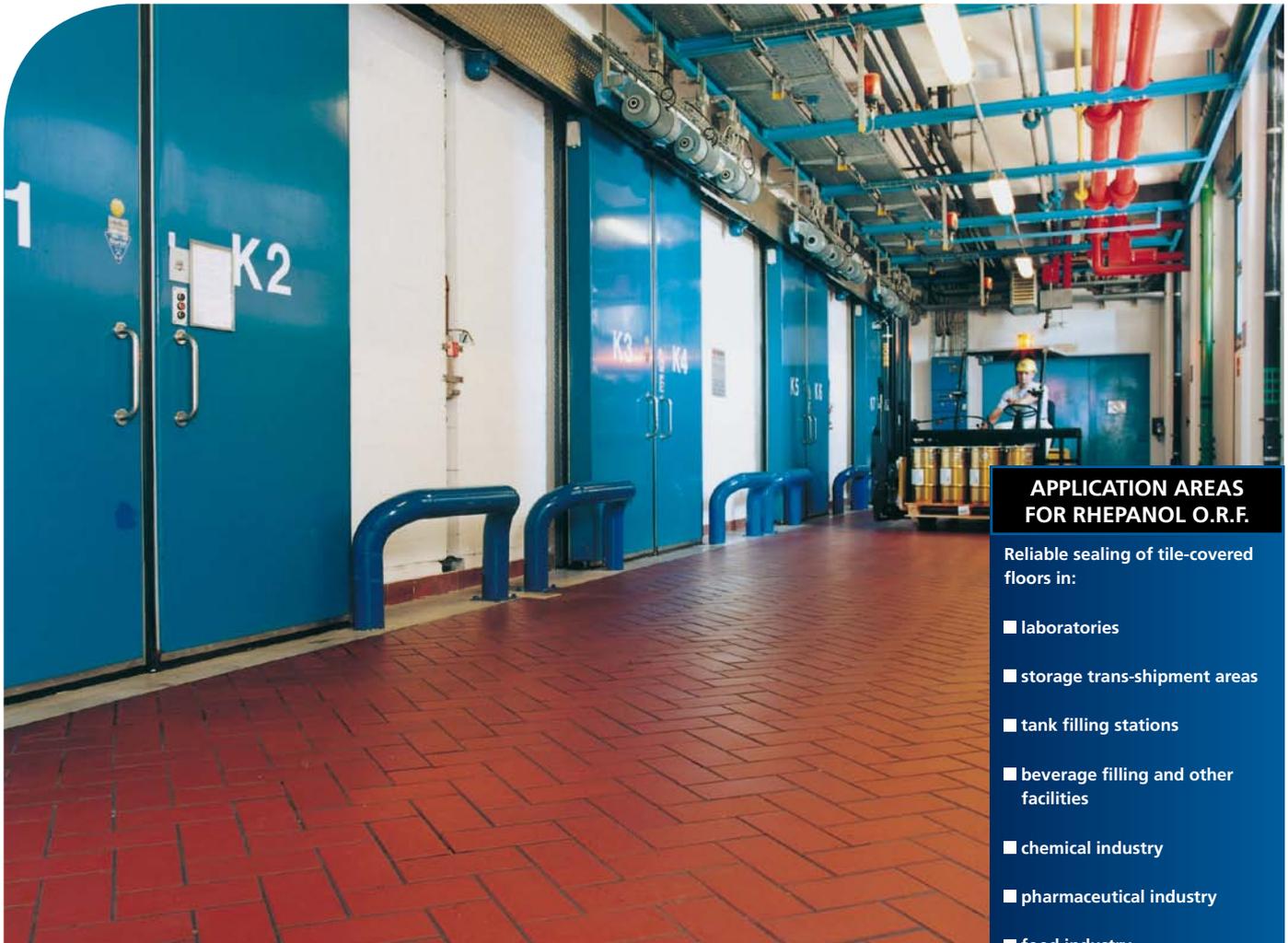
In special situations, **Rhepanol O.R.G.** may be used without additional surface protection, as it is able to withstand even the heaviest chemical contact from a vast majority of substances – with temperatures of up to 80 °C directly on the surface of the material.



Rhepanol O.R.G. provides reliable protection in the chemical and pulp industry.

Physical standard values

Material	Property	Unit	Value
Rhepanol® O.R.G.	Density	g/m ³	1.4
	Tensile strength	N/mm ²	4.0
	Elongation at break	%	500
	Shore-A hardness	–	80



APPLICATION AREAS FOR RHEPANOL O.R.F.

Reliable sealing of tile-covered floors in:

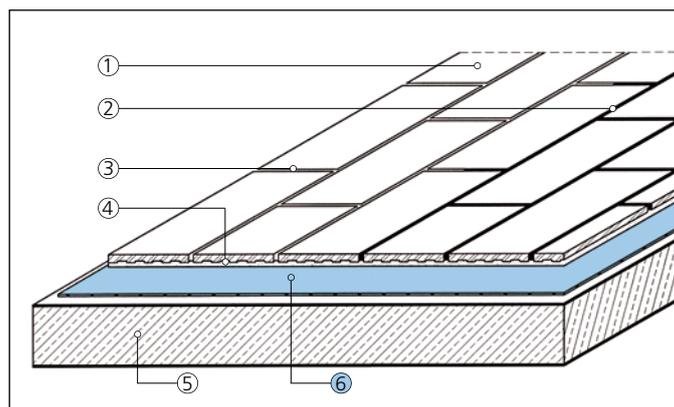
- laboratories
- storage trans-shipment areas
- tank filling stations
- beverage filling and other facilities
- chemical industry
- pharmaceutical industry
- food industry
- large-scale catering
- other industrial branches

*An application area for our acid-proof membranes:
The production premises of BASF in Ludwigshafen, Germany.*

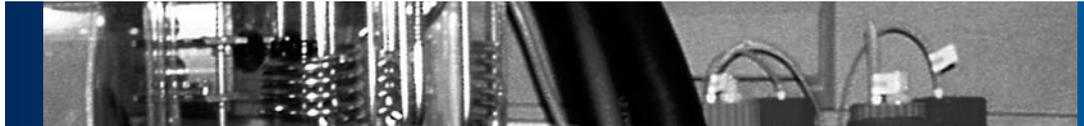
Rhepanol acid-proof membranes: The ideal in-between solution

Sometimes chance can make all the difference between a small accident and a big disaster for our environment. For those who do not want to rely on chance, Rhepanol acid-proof membranes are the ideal in-between solution for the protection of floors. As a central element, together with bricks/tiles and the substrate, they constitute a reliable and comprehensive system.

- ① Acid-resistant bricks, fine or ordinary ceramic tiles
- ② Filling mortar (cross joint/if necessary conductive)
- ③ Hollow joint (approx. 6 to 8 mm wide)
- ④ Installation mortar (bed or horizontal joint/ approx. 8 mm/if necessary conductive)
- ⑤ Substrate
- ⑥ Rhepanol O.R.F./Rhepanol O.R.G.



Rhepanol® O.R.F. acid-proof membrane: The right choice for almost any industry.



Economy plus protection

The **Rhepanol O.R.F.** acid-proof membrane is used as a reliable yet economical sealant to protect tiled industrial floor surfaces against low to medium aggressive chemical substances. Its strongholds are those branches of industry where you do not have constant contact, e.g. from concentrated mineral acids, in combination with higher temperatures. Other main fields of application are the reliable sealing of tiling on floor surfaces. Thus, being a reliable basis for the most varied industries, **Rhepanol O.R.F.** meets the constantly increasing demands for an especially economic solution.



Intelligent concept and easy testing

Rhepanol O.R.F. contains mineral aggregates and is electrically non-conductive. Therefore it can be tested for defects with an electrical high-voltage testing instrument. However, electrical testing can only be performed when the membrane is applied onto a conductive substrate.



*Economy plus protection:
Application areas for **Rhepanol O.R.F.** are, for example, the food and beverage industries, large-scale catering and laboratories.*

Physical standard values

Material	Property	Unit	Value
Rhepanol® O.R.F.	Density	g/m ³	1.6
	Tensile strength	N/mm ²	4.0
	Elongation at break	%	450
	Shore-A hardness	–	70

**FDT FlachdachTechnologie
GmbH & Co. KG**

Eisenbahnstraße 6-8
68199 Mannheim
Germany

Tel +49-6 21-85 04-0
Fax +49-6 21-85 04-2 05
www.fdt.de

Export Department:

Phone +49-6 21-85 04-3 75

Fax +49-6 21-85 04-3 78

E-mail saeureschutz@fdt.de