SIKA-FIL - *P422*





THINK • Filter Technology



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• Since 1759, 260 years of exeptional engineering

GKN Sinter Metals Filters, the leading manufacturer of porous sinter metal products, is working together with us -first with Hofte and since 2007 with Hofte's sister firm P4P b.v. Together we offer a variety of solutions to fulfil customer requirements. We are familiar with various applications in almost every industrial branch. Our products are applied in gas- and liquid filtration, dampening, sparging, sensor protection, bulk handling and many more. We offer solutions for high temperature and corrosive environments.

AS

Sintered filter elements made of stainless steels, bronze, nickel based alloys, titanium and several special alloys can be manufactured seamless up to 1,600 mm length and 320 mm OD. Larger elements will be assembled in our certified in-house welding shop. Our most innovative product for the chemical industry is the patented metallic membrane.

The filter cartridges equipped with this state-of-the-art technology offer a flow rate up to 4 times higher compared to conventional sinter metal filter cartridges. Furthermore an excellent back flush performance is guaranteed. The filter active membrane layer with filter grades down to 0.1 µm absolute has a thickness of only 200 µm and is made of the same alloy as the coarse support material. The membrane is sinter bonded to the support and therefore cannot peel off.

Another innovation introduced by GKN is the sinter bonded joint of porous parts with solid fittings in order to avoid welding seams – the weak spot of all sintered cartridges of our competitors.

All sintered materials of GKN offer a self-supporting structure with high mechanical strength.

We manufacture various filter grades with specified pore sizes and flow rates in order to have the appropriate solution for your requirements.

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Metaalvezelvilt Sika-FIL

Sika-FIL, a drademark of GKN Sinter Metals, is our brand name for a sintered stainless steel fibre element.

Wire mesh or perforated sheets can be sintered as a support on request.



Due to the high degree of porosity up to 85% of these composite metal fibre materiials can achieve an extremely high flow rate, especially for gases.



In comparison to the particle size distribution of powder materials, the range of diameters of the fibres is very uniform, resulting in an equallu narrow range of por diameters, this ensures an optimal ratio of filter grade to permeability.



Properties

These characteristics result in the following important properties of Sika-FIL products:

- Stable pore shape due to sinter processing
- High permeability
- Low pressure drop
- High dirt holding capacity (longer lifetime)

- High temperature resistance
- Easy cleaning (back fluhsing)
- Corrosion resistant
- High degree of mechanical flexibility (ductile)

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Applications

Sika-FIL is imployed in:

- Aerosol separation
- Polymer filtration
- Gas- and liquid filtration
- Hot gas filtration

as well as in other industries such as chemica land food processing, power engineering and environmental techology









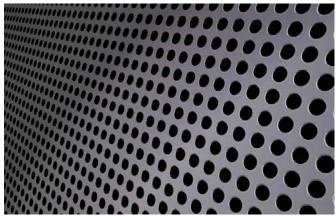
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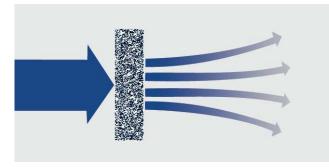














GKN filbre felt used as a sound dampening divice in an APU (Auxiliary Power Unit)

Good sipersion of liquids within the fibre felt material and high suction effect duet o the high porosity.

Various applications, e.b. in ink cartridges.

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Manufacturing of Sika-FIL products

Manufacturing of Sika-FIL is similar to powder metallurgical processes.

We produce composite fibre mats with an effective fibre diameter of 2 to 70 micron.

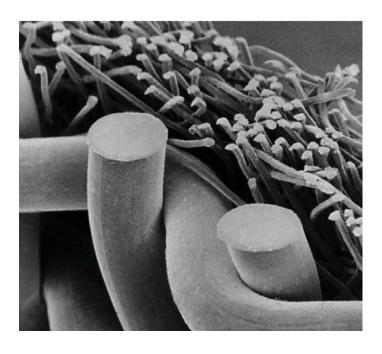
Differend types of composite metal fibre mats are combined to achieve the adequate filter properties requested by our customers.

The composite fibre material is then sintered together wit a supporting wire mesh under vacuum conditions in a unique soft sintering process.

Materials

The standard material used to manufacture Sika-FIL is AISI 316L (1.4404).

FeCrAl alloys are used for special (high temperature) applications.



Filterfijnheden

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Sika-FIL

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Sika-FIL	3 P*
Sika-FIL	5
Sika-FIL	5 P*
Sika-FIL	10
Sika-FIL `	10 P*
Sika-FIL	15
Sika-FIL	15 P*
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Sika-FIL	40 P*
Sika-FIL	50
Sika-FIL	70
Sika-FIL	100

^{*} Special for polymer applications

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Standard elements Sika-FIL...ECO







Filter side of SIka-FIL ... ECO



Support side of Sika-FIL... ECO

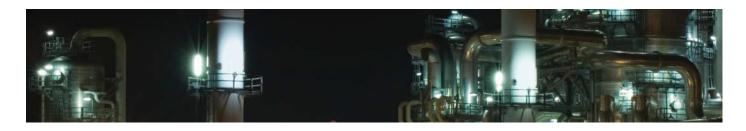
Sika-FIL ...ECO is our fibre felt material combined with an **expanded metal layer** as a support

This combination enables design of large filter elements with additional support construction.

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- 1. Catalyst recovery
- 2. Refinery
- 3. Water treatment

- 4. Food processing
- 5. EX-protection
- 6. Pneumatic valves

P4P Handelsonderneming by

Genieweg 9 3641 RH MIJDRECHT Tel.: 0297-233600

Info@p4p-online.nl

