

**Refractory highlights.
Hot gas filtration.**



RATH

Specialist in refractory technology for hot gas filtration

The dust removal of exhaust gases at high temperatures at an early stage is being demanded from an economical but also from an ecological point of view.

With the introduction of reliable high temperature filter media, there has been increasing interest in high temperature filtration.

Hot gas filters enable filtration of gases at temperatures up to 1000°C and in the presence of corrosive gases. Conventional filter media made from synthetic fibres reach their limits in this field because of their inadequate temperature resistance and their combustibility.

Operating at elevated temperatures confers distinct **advantages:**

- Recycling of thermal energy of the exhaust gas
- Increase of the overall efficiency
- Prevention of re-heating the exhaust gas
- Protection of downstreamed components like recuperator, catalysts
- Operation above dew points for acid gases, thus minimising corrosion
- Separation of incandescent particles

Product description.

Rath is a leading provider of refractories and insulating materials for high temperatures up to 1850°C.

Hot gas ceramic filter elements made of Kerform KVS 121 HGF complete our range of high temperature products.

These are based on high temperature wool Alsitra 1260 and are ideally suited to this application.

The self supporting filter elements are insensitive against flying sparks, resistant up to 1100°C, non-combustible and show a high thermal shock resistance.

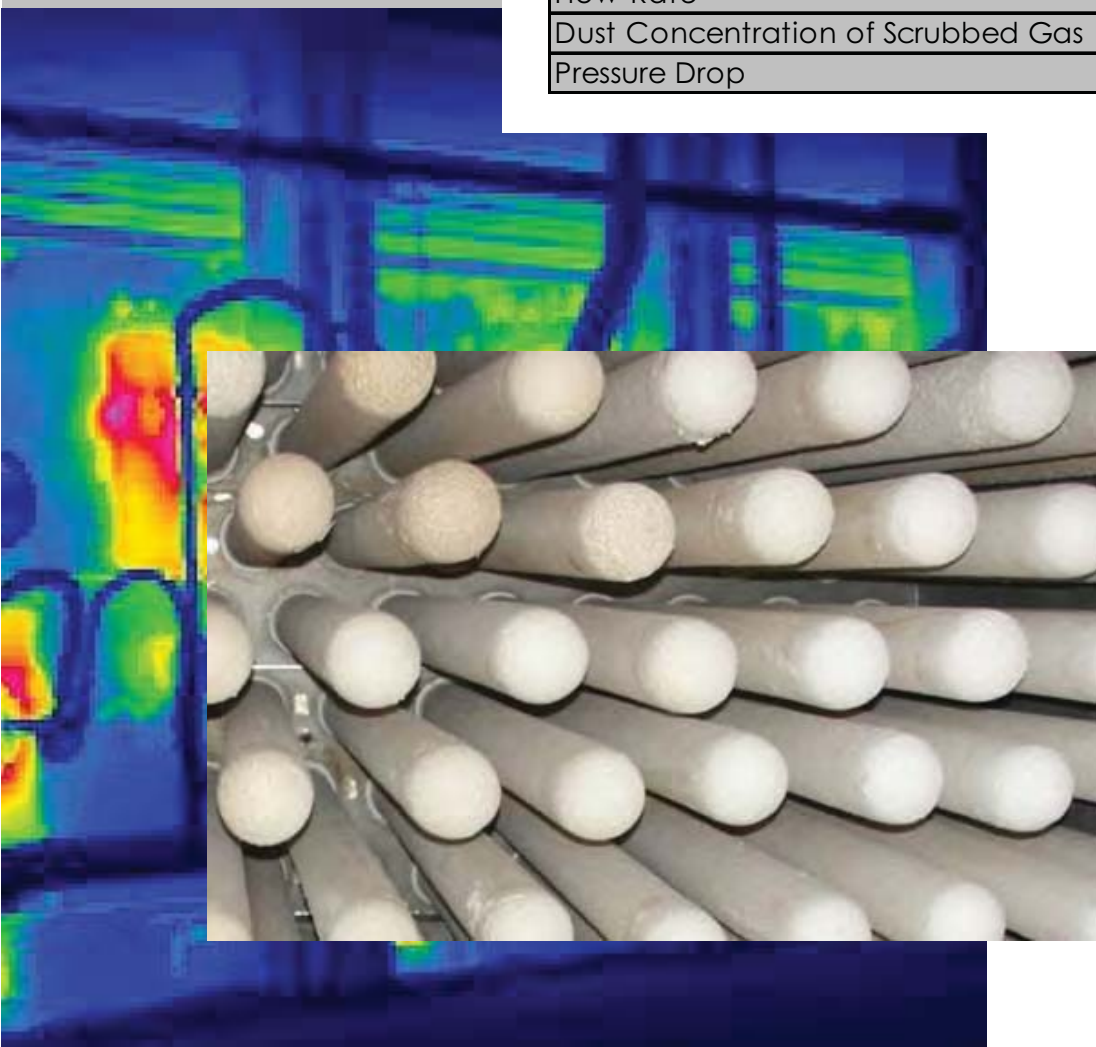
The surface filtration at high filtration fineness and a high porosity and air permeability guarantee extremely low emission rates with low differential pressure and an excellent cleaning behaviour.

Rath hot gas filter elements are successfully used as backwashable surface filters for particle separation from hot gases.

High temperature wool. Cost reduction.

Kerform KVS-HGF Filter elements

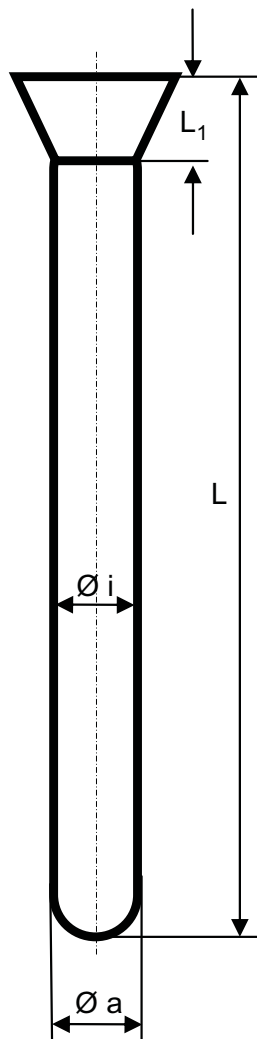
	Kerform KVS 121-HGF
Raw Material	Alumino-Silicate
Fibres	
Mass per Unit Area	1,5 - 3,5 kg/m ²
Porosity	85 - 90 %
Density	200 kg/m ³
Element-Diameter	max. 200 mm
Element-Length	up to 2500 mm
Flow Rate	0,017 - 0,050 m/s
Dust Concentration of Scrubbed Gas	< 1 mg/m ³ i.N.
Pressure Drop	15 - 50 mbar



**Ultra low density.
Facing thermal shock resistance.**

Kerform KVS-HGF Dimensions of filter elements

Outer-Diameter [a]	[mm]	150	150	150
Inner-Diameter [i]	[mm]	110	110	110
Length of Element [L]	[mm]	1125	1960	2250
Length of Flange [L1]	[mm]	100	100	100
Surface Area	[m ²]	0,53	0,92	1,06
Density	[kg/m ³]	200	200	200
Weight / Element	[kg]	1,8	3,2	3,7
Mass per Unit Area	[kg/m ²]	~ 3,5	~ 3,5	~ 3,5
Porosity	[%]	~ 90	~ 90	~ 90



Each of our customers expects something special.

Applications.

Hot gas filters can be used wherever the process prohibits cooling before or during filtration, i.e. before the next stage in the process, or where a cooling of the gases before filtration is uneconomical.

This is the case, for example, in:

- Power station processes: burning coal, gasification of coal, gasification of waste, gasification of biomass such as wood, sewage sludge, etc.
- Refineries, FCCU: e.g. off-gases from catalytic crackers
- Carbon black production
- Waste incineration plants
- Incineration of slightly radioactive waste e.g. protective clothing, apparatus
- Incineration of hospital and clinic waste
- Pyrolysis of contaminated soil
- Calciumcarbide production
- Production of nano-powders e.g. colour pigments
- Production of metals, e.g. iron, vanadium, magnesium
- Dedusting of melting furnaces
- Separation of aluminium and zinc dust
- Cement industry
- Production of plastics
- Recycling of precious metals



Krummnußbaum, Austria



Mönchengladbach, Germany

Please call us for more information.
Send us your drawing for quotation.

Rath Aktiengesellschaft

Walfischgasse 14

A-1010 Vienna

Tel.: +43 (1) 513 44 27-0

Fax: +43 (1) 513 44 27-88

E-mail: info@rath-group.com

Internet: www.rath-group.com

