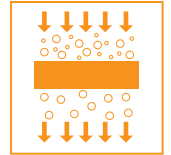


Filtration with SIPERM®



Particulate residues in gases or liquids can lead to contamination in many applications. These pollutants hinder the desired processes or do not comply with legal regulations on environmental protection. In other cases, particles are to be recovered from a medium stream for economic reasons.

Applications for filter materials made from SIPERM®

Filtration is a fundamental procedure in many manufacturing processes. Porous sinter materials are ideally suited for filter functions in various applications.

Depending on the application, filter materials made from Stainless steel (SIPERM® R), Bronze (SIPERM® B) or Polyethylene (SIPERM® HP) are used. The SIPERM® materials consist of powders, which are melded to porous bodies by sintering. Depending on the powder particle size of the starting material,

different porosities and filter fineness can be realized. The manufacturing process allows almost any geometry.

The selection of the appropriate SIPERM® material depends on the application temperature, the materials to be filtered, as well as the pressure loss and the deposition rate. Depending on the application, it is possible to choose from a large number of different pore size distributions in order to achieve the best possible filtration result.

Stainless steel filters – SIPERM® R (AISI 316 L / 1.4404) Pore size 1 – 200 µm

- ◆ High chemical resistance
- ◆ Even at high temperatures mechanically extremely resilient and dimensionally stable
- ◆ Food-safe
- ◆ Suitable for back-flushing and other cleaning processes

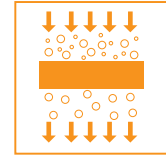
Application examples:

- ◆ Filtration of viscous plastic melts
- ◆ Filter cartridges for gas filtration in chemical processes
- ◆ Dust removal in measuring devices and electrical systems



Stainless steel filters - SIPERM® R (Pore size 1 - 200 µm)

Filtration with SIPERM®



Plastic filters – SIPERM® HP (PE) Pore size 5 – 200 µm

- ◆ Very high chemical resistance
- ◆ Mechanically very stable, in particular also with changing load
- ◆ Realizable in complex geometry and high quantity
- ◆ Food-safe, with FDA-certificate
- ◆ Hydrophobic; hydrophilic adjustable



Plastic filters – SIPERM® HP (Pore size 5 – 200 µm)

Application examples:

- ◆ Dust removal, e.g. in automotive industry or valve technology
- ◆ Filter heads for humidity sensors
- ◆ Base material for dimensionally stable activated carbon filters

Bronze filters – SIPERM® B (CuSn 10) Pore size 5 – 200 µm

- ◆ Low pressure losses
- ◆ Very homogeneous pore structure due to almost fully spherical base material

Application examples:

- ◆ Oil filters for hydraulic brake systems
- ◆ Gas filters in compressed air equipment



Bronze filters – SIPERM® B (Pore size 5 – 200 µm)

◆ Please do not hesitate to contact us!
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