FILTER BAGS FOR INDUSTRIAL DEDUSTING SYSTEMS

They are one of the most popular industrial materials used in the filtration process of both: liquids and dust-air mixtures. Filter bags allow effective separation of industrial pollutants and are the most effective devices that affect the quality of atmospheric air and reduce the amount of post-production dust emitted into the atmosphere.

All filter bags and sleeves available in the 4INDUSTRY range are made to order, only from the highest quality materials. Access to a wide range of filter fabrics and non-woven fabrics allows us the production of filter bags that are perfect for many industrial processes.

Diversified parameters and chemical properties of filter fibers make it possible to manufacture the filter bags from material customsized for many filtration processes, e.g. fibers conducted at high temperatures or in an aggressive reactive environment. Depending on the type of dust nuisance and the working conditions of the bags, filter materials with different physicochemical properties are used.

Filter bags offered by 4INDUSTRY are precisely tailored to the Customer needs and to the specifics of the industry in which they operate. The right choice of nonwoven fabric is often a key factor in the efficient course of the filtration process.













THE MOST POPULAR FILTER BAGS:

The most popular material, due to its price and properties, is **POLYESTER**, available in various weights and with various protections, depending on the needs. Such bags are characterized by antistatic properties, this feature has been used in dedusting substances with explosive properties.

A non-standard solution used in industry are **POLYACRYLONITRILE** filter bags. Their main advantage is that they can be used in demanding environments, including high temperature and aggressive chemical environments.

POLYIMIDE filter bags are characterized by very good resistance to high temperatures of 230-260°C. Polyimide non-woven fabric is sometimes combined with other materials to achieve better resistance to the conditions in which it will be used. In industrial production, where post-production gases reach higher temperatures or the environment is chemically aggressive, other filter materials are used.



THE FILTER BAGS CAN WORK IN:

- grain and milling industry
- food and feed industry
- wood and furniture industry
- cement industry
- gypsum and lime industry
- energy and mining industry
- automotive industry
- the plastics industry
- chemical and pharmaceutical industry
- metallurgical industry
- the fertilizer industry
- cleaning and shot blasting of metals
- asphalt plants
- waste disposal plants



REPLACEMENT OF FILTER BAGS:

Filter bags require proper assembly, this is another important element ensuring their proper operation. That is why the 4INDUSTRY offer includes services related to the service of bag filters and professional replacement of filter cartridges.





DESTINATION:



FILTER BAGS FOR EXTRACTIONS AND INDUSTRIAL EXTRACTION SYSTEMS

DIMENSIONS:





BAGS ARE MADE TO ORDER ACCORDING TO PROJECTS OR DESIGNS PROVIDED BY THE CUSTOMER

TYPES OF PRODUCT FINISHING:





- FIHISHED WITH A ROPE
- FIHISHED WITH SPRING RING
- FIHISHED WITH TAB
- FIHISHED WITH FELT GASKET
- FIHISHED WITH SEWN STEEL RINGS

TREATMENT:









| - ANTISTATIC |
|--|
| - WATER AND OIL PROOF |
| - RESISTANT TO REACTIVE SUBSTANCES |
| - SUPERFINISHING AND CALENDERING OF BAG SURFACES |
| - ALLOWING AIR TO BE RECIRCULATED |
| |

| TYPE OF FIBER | COTTON | POLYPROPYLENE | POLYAMIDE | POLYACRYLONITRILE | POLYESTER | POLYPHENYL SULFIDE | ARAMID | GLASS | POLITETRA | POLYIMIDE |
|---|--------------|---------------|-------------------|-------------------|---------------------|-----------------------|--------------|--------------|--------------------|--------------|
| OTHER TRADE NAMES | COTTON | MERAKLON | NYLON / PERLON | DOLANIT RICEM | TREWIRA TERYLENE | RYTON | NOMEX | GLASS | TEFLON PROFILEN | P84 |
| SPECIFIC GRAVITY | 1,54 g / cm3 | 0,91 g/cm3 | 1,15 g / cm3 | 1,18 g / cm3 | 1,38 g / cm3 | 1,37 g / cm3 | 1,38 g / cm3 | 2,65 g / cm3 | 2,15 g / cm3 | 1,14 g / cm3 |
| CONSTANT RESISTANCE BY TEMPERATURE | 80 °C | 90 °C | 100 °C | 125 °C | 140°C | 180°C | 200°C | 250°C | 260°C | 260°C |
| MOMENTARY RESISTANCE BY TEMPERATURE | 100 °C | 100°C | 120℃ | 140°C | 150°C | 200°C | 240°C | 310°C | 280 °C | 300°C |
| RESISTANCE FOR MINERAL ACIDS | bad | very good | bad | good | good | very good | weak | good | very good | good |
| RESISTANCE FOR ORGANIC ACIDS | good | very good | weak | good | good | very good | good | good | very good | very good |
| RESISTANCE TO ALKALINES | good | very good | good | weak | weak | very good | good | weak | very good | good |
| RESISTANCE ON OXIDIZING AGENTS | weak | good | weak | good | good | weak | very good | very good | very good | very good |
| RESISTANCE TO ORGANIC SOLVENTS | very good | good | good | very good | very good | good | good | very good | very good | good |
| RESISTANCE ON BIOLOGICAL AFFECTS | weak | good | very good | very good | very good | good | good | good | very good | very good |
| MOISTURE ABSORPTION | 7 - 11 % | 0,0 - 0,1 % | 4 - 4,5 % | 1 -1,5 % | 0,3 - 0,4 % | 0,6 % | 2,5 - 4,5 % | 0,0 - 0,3 % | 0,0 % | 3,0 % |