

# COSMETICS & PERSONAL HYGIENE PRODUCTS

[www.sigafiltration.co.uk](http://www.sigafiltration.co.uk)

Filtration is a critical step in the production of cosmetics and personal hygiene products to ensure that raw materials, blends and final product are free from impurities, contaminants, and particulates.

## Types of filtration:

**Coarse filters or screens** remove large particles and protect downstream equipment. Suitable for raw materials, intermediates and viscous products.



**acuraBasket**

Cleanable mesh basket  
316 Stainless Steel  
1 - 2000 micron



**BREW Bag**

Food Grade Filter Bags  
Nylon mesh or PP felt  
1 - 1200 micron



**STERALine FBH**

Sanitary Size 2 Filter  
Housing for Filter  
Bags

**Depth filters** are used to capture smaller particles throughout the depth of the filter medium. Particles are captured in progressively finer layers. Also suitable for viscous products.



**BREWBag** food grade filter  
bags 1 - 1200 micron

**STERALine FBH** Sanitary Bag  
Filter housing



**FINEPleat PP Absolute**  
Pleated PP element 0.2 - 70  
micron

**STERALine PBT** Sanitary  
Cartridge filter housings



## Contaminants

### Particulate Matter:

Dust, dirt, undissolved powders, and other solid particles.

### Microbial Contaminants:

Microorganisms that can spoil the product or cause infections.

## Unique filtration requirements of cosmetic formulations

Each cosmetic formulation requires a unique filtration process.



**Lotions and Creams** typically use a combination of surface and depth filtration to ensure a smooth texture.



**Serums and Gels** often require depth filtration and fine membrane filtration for clarity and sterility.



**Shampoos and Conditioners** use screen and depth filtration to remove particulate matter and ensure consistency.



Filtration of **Makeup Products** ensures that products like foundation and mascara are free from clumps and contaminants.

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**Absolute rated** elements and membrane filters to achieve high purity and clarity. These are used to remove microorganisms and very fine particles. Suitable for serums and lotions.



**FINEpleat PP** Absolute  
Pleated PP element  
0.2 - 40 micron



**STERIpleat PES**  
Sterilising Grade  
Membrane  
0.2, 0.45, 0.65, 1 micron



**STERALine PBT**  
Sanitary Cartridge  
filter housings

**Adsorption Filtration:** Utilises adsorbent materials such as activated carbon or resins to bind unwanted substances. Used for deodorizing, decolorising, and removing trace chemicals.



**KEMISorb** Food Grade  
Carbon Block Filter  
Element



**STERALine PBT**  
Sanitary Cartridge filter  
housings

**Sterile Filtration:** Removes microorganisms to ensure the sterility of the product. Employs filters with very small pore sizes (typically 0.22 micron). Critical for products that need to be free from microbial contamination, such as eye drops or injectable cosmetics.



**STERIpleat PES**  
Sterilising Grade  
Membrane  
0.2, 0.45, 0.65, 1 micron



**STERALine PBT**  
Sanitary Cartridge filter  
housings

## How we can help

- **Filter Media Selection:** Siga Filtration can help in the selection of a filter media that is compatible with the cosmetic formulation to avoid chemical reactions or degradation.
- **Process:** We can help select the appropriate pore size based on the type and size of impurities to be removed and ensure the filtration system can handle the required flow rate without clogging or slowing down production.
- **Sterilisation:** Our sterilising grade filters produce a sterile product and can be integrity tested to ensure compliance.
- **Regulatory Compliance:** Our filters are constructed from FDA compliant materials and meet or exceed the requirements of EC1935/2004. The sterile membranes are integrity testable and offer the highest level of protection from biological contamination. All products for cosmetics industry meet strict quality requirements and are manufactured in the European Union and United Kingdom.

