

Guideline | Cleaning guide

1. Introduction

In most cases, maintaining a Filcoflex product simply requires routine maintenance. The materials used to manufacture our connectors will naturally wear over time with use. However, proper maintenance of the product will give it the longest possible lifespan.

To prevent damage to the product, please do not handle it with sharp objects. Filcoflex products are often designed to be installed and removed by hand or with a socket wrench. When a tool such as a screwdriver is required, please handle it with care to avoid causing any damage to the product.



2. Manual cleaning

The most effective and easiest way to manually clean a Filcoflex Poly Urethane product, such as a sleeve, seal or connector, is by using ethanol or isopropyl alcohol. Both substances effectively clean Poly Urethane and restore its original clarity while also sanitizing the product.

With regard to food contact safety, ethanol and isopropyl alcohol have been tested for their impact on Poly Urethane. Both substances have been proven not to affect the material. These test results are documented in the Declaration of Compliance for food contact compliance, and a copy of this declaration can be sent upon request.

The Poly Urethane sleeves can also be washed or rinsed using non-corrosive detergents in warm water.

Please ensure that the product is thoroughly wiped clean and dry of any remaining chemicals after washing. It is also recommended to clean and dry the pipework connection on which the product will be installed. This prevents any remaining chemicals from entering the process line.



3. Clean In Place (CIP)

Most Filcoflex Poly Urethane products can be used in CIP processes that use detergents or chemicals. No issues are expected when the CIP process uses detergents only.

If the CIP process involves the chemicals listed below, it is recommended to stay within the specified guidelines. These include the maximum recommended concentration percentages and temperatures for each chemical. These guidelines are based on studies and tests conducted by Filcoflex. Filcoflex therefore advises against exceeding these concentration limits and temperatures.

Acid		0,8%	90°C/194°F	
HNO ₃	Nitric Acid	0,8%	90°C/194°F	May result in slight color change
HNO ₃	Nitric Acid	4,0% ^[1]	90°C/194°F	Strong color change to amber
HCL	Hydrochloric Acid	0,8%	90°C/194°F	Slight color change
HCL	Hydrochloric Acid	4,0% ^[1]	90°C/194°F	Strong color change to opaque
Lye		1,5%	90°C/194°F	
NaOH	Sodium hydroxide	1,5%	90°C/194°F	
NaOH	Sodium hydroxide	4,0% ^[1]	90°C/194°F	Strong color change to amber

Using higher concentrations does not provide any additional benefit for the cleaning process. On the contrary, higher concentrations can have a significant impact on plastic and rubber components such as gaskets, seals, and flexible joints.

Even at the maximum recommended concentrations, CIP chemicals may affect Poly Urethane materials over time, primarily in terms of color change. However, this does not affect the performance or mechanical properties of the Poly Urethane. Tear strength and elasticity remain unaffected or are only marginally affected.

This has been extensively tested, and a copy of the test report is available upon request.

For rinsing and drying, Filcoflex recommends the following guidelines.

Hot water	90°C/194°F
Hot air	100°C/212°F ^[2]

4. Cleaning notes

After washing, always rinse and dry the connector thoroughly and remove all residual fluids and chemicals. This applies to both CIP and manual cleaning procedures.

Ensure that any mating flange, tube, or spigot connected to the flexible sleeve or seal is also cleaned and dried thoroughly before reassembly.

^[1] Higher concentrations have also been tested and show to affect the Poly Urethane materials greater. A copy of our testing report is available upon request.

^[2] Hot air temperatures have been tested up to 120°C (248°F). Upon request we can disclose the results and advice on specific design applications.