PROLAST-O®
FFPM HIGH-PERFORMANCE SEALS

KUBO
Mit Leidenschaft fürs Detail.

PROLAST-O®

FFPM HIGH PERFORMANCE SEALS
SWISS PRECISION - PRODUCED ON OUR PREMISES

In specific application areas with aggressive media and high temperatures, standard elastomers such as NBR, Viton®, or EPDM can no longer withstand. Perfluorelastomers (FFKM/FFPM) are top-grade materials that are extremely resistant to acids, amines, bases, highly pure deionized water, steam, solvents, and cleaning agents. Even at higher temperatures, seals made from this excellent material remain operational, extending maintenance intervals and increasing safety.

GENERAL

The outstanding chemical and temperature resistance of Perfluorelastomers (FFPM/FFKM) allows its use as sealing material in the food sector, pharmaceutical, medical, chemical, biotechnology industries, in chemical process engineering, as well as in aerospace. Aggressive and corrosive media as well as CIP/SIP cleaning and sterilization processes, but also coolants, lubricants, and fuels hardly affect this sealing material.

The main cause of premature seal failure lies in the swelling and embrittlement of the sealing material. Thanks to the long-term resistance of Perfluorelastomers against the mostly highly aggressive chemicals and high temperatures, maintenance intervals can be extended, thus increasing the productivity of the plant.

From this material, mainly O-rings are made. For this purpose, Kubo Tech AG in Effretikon near Zurich has a variety of vulcanization moulds available in metric and inch dimensions, meaning no tooling costs are charged for these standard sizes. However, custom dimensions can also be quickly realized in our own toolmaking department.

We can implement special customer requests or ideas into custom-molded parts. The corresponding design is done in-house and realized in our own toolmaking department.

PROLAST-O® COMPOUNDS

		Hardness Shore A	Colour	Operation temperature [°C]	FDA 21 CFR 177.2400	EU Nr. 1935/2004	USP Class VI	3A Sanitary Standard Class I-IV
Prolast-O® Standard	20-75-0004	75	Black	-35 bis +230	x	x		
Prolast-O® Standard	20-70-0012	70	White	-35 bis +230	x	x		
Prolast-O® Medical	20-70-0017	70	White	-20 bis +260	x	x	x	x
Prolast-O® High temperature	20-75-0043	75	Black	-15 bis +320				

AUTHORIZATIONS AND CONFORMITIES

RoHS Conformity
The O-rings and moulded parts made from perfluorelastomers FFPM comply with the RoHS Directive 2011/65/EC of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment. Specifically, these substances include lead (Pb), cadmium (Cd), hexavalent chromium (Cr), polybrominated biphenyls (PBB), polybrominated diphenyl ethers (pentaBDE, octaBDE, decaBDE), and mercury (Hg).

REACH Conformity EC/1907/2006
According to Article 33 of the REACH Regulation, suppliers of articles are obligated to inform their recipients if their products contain substances listed in the SVHC Candidate List, provided that the concentration threshold for the information obligation is exceeded. From today's perspective, it is not expected that SVHC substances, as indicated in the so-called "Candidate List," are present in the perfluorelastomer materials processed by us in a mass concentration exceeding 0.1%.

ADI-free, free from ingredients of animal origin
FFPM is a fully synthetic material, which is ADI-free, meaning it is free from any products of animal origin.
FFPM complies with the guidelines for minimizing the risk of transmission of agents in the field of TSE (Transmissible Spongiform Encephalopathies) of animal origin through human and veterinary medicinal products.

Chemical Resistance (Food, Pharmaceutical and Medical Industries)
Excellent chemical resistance in the pH range from 0 to 14. It withstands all acids, bases, alcohols, ketones, hydrocarbons, oils, etc. The perfluorelastomer FFPM is virtually resistant to all media. Furthermore, FFPM is consistently resistant to Clean-in-Place (CIP), Steam-in-Place (SIP) processes, sterilization processes, as well as aggressive cleaning agents and media, making it the right choice for these applications. With the appropriate sealing material, downtime can be reduced, and service intervals extended.

Weather Resistance
The material properties of the perfluorelastomer FFPM remain largely unchanged even under extreme climatic conditions. Its resistance to aging, especially from UV radiation and ozone exposure, is extremely high. Water absorption, even after extended storage periods, is not detectable.

Sterilizable
The perfluorelastomer FFPM can be sterilized using both ethylene oxide (ETO) and autoclaving at temperatures up to +121°C.

WHY PROLAST-O®?

- Resistant to aggressive chemicals and high temperatures
- Low compression set
- High temperature stability
- Excellent vacuum performance
- High purity for food and pharmaceutical industries
- Produced in Effretikon near Zurich, with fast delivery for existing tooling
- Many tools available in metric and inch dimensions, meaning no tooling costs for these standard sizes
- Years of experience, highest quality

OTHER FFPM COMPOUNDS

For specific requirements with according authorizations, we have other FFPM compounds available.

Please send us your requirements.

TOOL MAKING AND PRODUCTION OF THE PIECES

In our in-house mould construction, vulcanization tools are designed and created. With these we produce O-rings and different moulded parts at hour headquarters in Effretikon. Subsequent finishing and inspection enable us to give top-quality O-rings and moulded parts the final touch. Through automatic and optical inspection, parts that are 100% tested can be delivered upon customer request.

Our own mould inventory includes a variety of vulcanization moulds in metric and inch dimensions, ready for use. Special dimensions or custom parts can be realized in our own toolmaking department.

At our manufacturing site in Effretikon near Zurich, appropriate O-rings can be manufactured in urgent cases within a very short time frame.

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