

Vi 780
F K M



SEAL TECHNOLOGY
PREMIUM-QUALITY SINCE 1867

Vi 780 – the expert solution for the food and pharmaceutical industries

The use of elastomer seals in the food and pharmaceutical industries places heavy demands on the sealing materials involved. These need to meet the special conditions governing these areas of use, and at the same time must be capable of exceptional performance if they are to hold up in practice. This is just the area where the experts will be unanimously impressed by this special HygienicSeal FKM material. The Vi 780 compound holds three of the most important certifications for use in this sector: FDA 21. CFR 177.2600, 3-A Sanitary Standard and USP Class VI to +121 °C, Chapter 88. In addition, the compound has been successfully tested for cytotoxicity in accordance with the requirements of USP, Chapter 87. This makes it an absolutely safe substance even for use in critical areas.

The high-performance FKM Vi 780 is designed for a wide range of applications involving many different kinds of media. This special compound also shows its strengths when used with animal or plant fats with a fat ratio of $\geq 30\%$. But the real advantage of this substance lies in its resistance when used in connection with CIP and/or SIP processes. The swelling tendency of HygienicSeal Vi 780 is minimal, so there will be no problem about using it even in tight situations, like sterile screw connections where the conditions of hygienic design have to be met. This FKM is moreover resistant to aromatic substances and etheric oils, and offers maximum flexibility in a wide range of production processes. For many system designers, this sets new standards for use in the food and pharmaceutical industries.

HygienicSeal



Properties of Vi 780

- Special FKM compound for the food and pharmaceutical industries
- Ideal for sterile screw connections
- Excellent resistance in CIP/SIP processes
- Outstanding chemical resistance
- Operating temperature range: -10 °C to +200 °C
- Resistant to flavouring agents
- Approvals: FDA, USP Class VI up to +121 °C, 3-A Sanitary Standard 18-03, Class 1

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HygienicSeal Vi 780 – the standard FKM for use in the food and pharmaceutical industries



To meet the exceptionally high requirements of the food and pharmaceutical industries, COG has developed its HygienicSeal product line – the seal of quality for safety. In applications of this kind conventional elastomer materials cannot be used, as they lack the required certifications. In addition, the seals used in such situations must also be capable of withstanding any reciprocal action that occurs in the production process without a problem. In particular, the cleaning cycles in the CIP and SIP processes, and the aggressive WFI water frequently used in the pharmaceutical industry, make extreme demands on the sealing materials. The increasing use of sterile screw connections in tight conditions where hygienic design principles for the elimination of dead space are mandatory likewise represents an enormous challenge. Meeting all these requirements at once is an insuperable challenge for practically all elastomer seals. With the FKM HygienicSeal Vi 780 it is a different story.

The FKM compound is also outstandingly suitable for use with fatty media, being significantly superior to EPDM substances in this connection. In certain areas the sealing properties of FFKM seals can actually be equalled or in some cases surpassed. These are ideal conditions for use even in particularly demanding applications.



CIP = Cleaning in place
SIP = Sterilisation in place
WFI = Water for Injection

DATA SHEET

COG-No.:	Vi 780
Basic elastomere:	fluoro rubber (FKM)
Colour:	black
Temperature range:	from -10 °C to +200 °C
Certificates/approvals:	FDA 21. CFR 177.2600, USP Class VI up to +121 °C, Chapter 87 and Chapter 88, 3-A Sanitary Standard 18-03, Class 1, BAM tested (when used with gaseous oxygen, max. application until 60 °C / 30 bar)
Comment:	Peroxidically crosslinked

Rubber technology data

Properties	Unit	Value	Testing methods
Hardness:	Shore A	80 ± 5	DIN ISO 7619-1
	°IRHD, CM	80 +3/-8	DIN ISO 48
Tear resistance:	MPa	> 19	DIN 53 504
Ultimate elongation:	%	> 210	DIN 53 504
Compression set (24 h / 200 °C)	%	< 15	DIN ISO 815

The stated values do not replace the official datasheet. They are without legally binding effect and exclude liability for damages of whatever kind.

