Teflex-VMQ Silicone - Technical Data Sheet

1. Introduction

ERIKS Teflex O-Rings are composed of a Silicone elastomer encapsulated in seamless FEP or PFA-cover. The elastomer works as a rubbermaterial and helps the slow recovery of the FEP or PFA-cover. The chemical resistance of FEP and PFA is almost the same as PTFE. FEP and PFA comply with the FDA and USP class VI regulations for contact with food and pharmaceuticals.

2. Product Description

Chemical Composition	:	• FEP COVER: Copolymer of Hexa-Fluorpropylene and Tetrafluorethylene • PFA COVER: Perfluoralkoxy • CORE: Methyl-Vinyl-Silicone Rubber
Physical form	:	O-Rings
Colour	:	Red; cover: Translucent
Storage stability*:		10 years

* : Following ISO 2230 conditions

3. Physical Properties

Test Method	*Norm*	*Test Values*
Specific Weight	ISO 2781	1,26
Hardness	ISO 868	70 ± 5 IRHD
Tensile Strength at break	ISO 37	8,6 MPa
Elongation at break	ISO 37	280%
Compression Set, 22h/175°C	ISO 815	32%
FEP cover		
Tensile Strenght	ASTM D 2116	28 MPa
Fusion Point	ASTM D 3418	260°C
PFA cover		
Tensile Strength	ASTM D 2116	28 MPa
Fusion Point	ASTM D 3418	305°C

4. Temperature Resistance

- with FEP: -60° to +200°C
- with PFA: -60° to +260°C

5. Chemical Resistance

Concentrated acids	:	very good
Acetone	:	very good
Hydroxides	:	very good
Benzol	:	very good
Crude oil	:	very good
Toluene	:	very good
ASTM Fuel C	:	very good
MEK	:	very good
MTBE	:	very good
Water	:	very good
Steam	:	very good

6. Advantages

- Excellent chemical resistance, comparable with that of PTFE
- Good compression set of silicone core

7. Other Information

- Other colours available on demand
- FEP and PFA in conformity with Foods and Drugs Administration 21 CFR177.1550
- Silicone inside compliant with FDA 21 CFR177.2600
- FEP and PFA in conformity with U.S. Pharmacopeia (USP) class VI
- Hollow silicone cord on demand
- This compound is ADI (Animal Derived Ingredient Free).