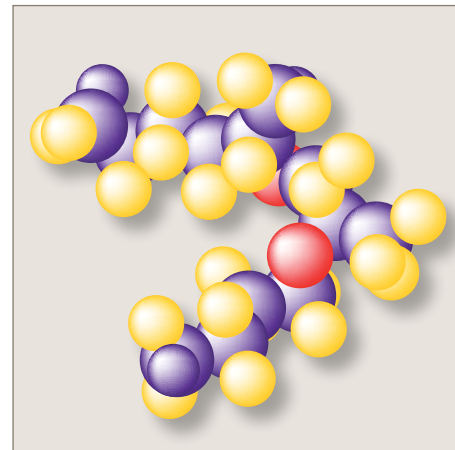


# Parofluor® (FFKM) V8951-70

for sterile applications  
in the pharmaceutical industry



The versatile Parofluor® compound V8951-70 is recommended due to its clearly improved sealing force, enhanced chemical resistance and low contamination by extractions in pharmaceutical and biotechnological applications. It complements the Parofluor® family of high-performance perfluoroelastomers and is designed for use with challenging, oxidising media, for SIP (Steam-in-Place) and CIP (Cleaning-in-Place) cleaning. Its outstanding mechanical properties and excellent permanent elasticity guarantee long service life in operating temperatures of up to 260 °C and thus significantly increase productivity.



## Product features

- Superior chemical resistance in aggressive and oxidising media
- Very good resistance in hot water, steam, de-ionised and ozone-containing water and cleaning media
- Outstanding temperature resistance from -15 °C to 260 °C
- Excellent sealing function due to outstanding surface quality
- Very pure material
- Conforms to FDA (Food and Drug Administration) requirements No. 177.2600, CFR 21 (Rubber for Repeated Use)

- Meets extraction conditions of "United Pharmacopeia USP 26, NF 21, 2003 for the Biological Test for Plastics, Class VI"
- Meets the regulation (EG) No. 1935/2004

## Recommended applications

- Pharmaceutical industry
- Biotechnology and cosmetics
- Food industry
- Chemical and process technology
- Sterile applications
- Semiconductor production (as UHP version)



## Selection of the base elastomer

Media compatibility and temperature resistance are decisive characteristics for the selection of the base rubber. Therefore, exact knowledge of the temperatures and media – including lubricants and cleaning agents – to which a sealing element is exposed in a concrete application is an indispensable prerequisite for selecting a suitable base elastomer.

| Medium                                             | Parofluor®<br>V8951-70<br>(FFKM) | HiFluor®<br>(FKM) | Fluoro-<br>rubber<br>(FKM) | Ethylene-<br>propylene<br>rubber (EPDM) | Silicone<br>(VMQ) | Hydrated<br>NBR<br>(HNBR) |
|----------------------------------------------------|----------------------------------|-------------------|----------------------------|-----------------------------------------|-------------------|---------------------------|
| Acetone                                            | 1                                | 2                 | 4                          | 1                                       | 4                 | 4                         |
| Steam (<150 °C)                                    | 1                                | 1                 | 4                          | 1                                       | 3                 | 4                         |
| Steam (>150 °C)                                    | 1                                | 2                 | 4                          | 2                                       | 4                 | 4                         |
| Acetic acid, glacial acetic acid<br>(concentrated) | 1                                | 1                 | 4                          | 1                                       | 1                 | 3                         |
| Acetic acid, hot (high pressure)                   | 1                                | 1                 | 4                          | 3                                       | 3                 | 4                         |
| Methylethylketone                                  | 1                                | 2                 | 4                          | 1                                       | 4                 | 4                         |
| Soda liquor, 25%                                   | 1                                | 1                 | 4                          | 1                                       | 4                 | 4                         |
| Peracetic acid                                     | 1                                | 1                 | 1                          | 4                                       | 4                 | 4                         |
| Nitric acid (concentrated)                         | 1                                | 1                 | 1                          | 4                                       | 4                 | 4                         |
| Toluole                                            | 1                                | 1                 | 1                          | 4                                       | 4                 | 3                         |
| Hydrogen peroxide                                  | 1                                | 1                 | 1                          | 1                                       | 1                 | 3                         |
| Citric acid                                        | 1                                | 1                 | 1                          | 1                                       | 1                 | 1                         |
| Operating temperature in °C                        | 260                              | 250               | 200                        | 150                                     | 200               | 150                       |

- 1 minimal or no volume swelling, very good resistance
- 2 low volume swelling, limited resistance
- 3 medium volume swelling, conditional resistance
- 4 high volume swelling, no resistance

For further detailed resistance information, please see Parker media resistance list.

## Physical data

| Prüfung                            | Dimension            | Norm        | Wert                |
|------------------------------------|----------------------|-------------|---------------------|
| Material base                      | -                    | -           | FFKM                |
| Colour                             | -                    | -           | weiß                |
| Hardness on standard test specimen | Shore A              | DIN 53 505  | 70 <sup>+/-5</sup>  |
| Hardness on O-ring (s > 1.78)      | IRHD                 | DIN ISO 48  | 70 <sup>+5/-8</sup> |
| Modulus 100 %                      | [N/mm <sup>2</sup> ] | DIN 53 504  | 10,6                |
| Tensile strength                   | [N/mm <sup>2</sup> ] | DIN 53 504  | 16,3                |
| Ultimate elongation                | [%]                  | -           | 151                 |
| Compression set 70 hrs. / 200 °C   | [%]                  | DIN ISO 815 | 34                  |
| Operating temperature              | °C                   | -           | -15 / 260           |

The measured values of the typical properties stated above are average values that have been determined in tests under laboratory-like conditions. These values do not necessarily correlate with results determined on the finished part. Our information does not release the user from the obligation to perform suitability tests. Manufacturing processes and raw materials contained in the products are adjusted in line with technological progress and legal requirements. Parker meets the requirements of the Radiation Protection Regulation of the Federal Republic of Germany.