# SIMRIZ® 484 FOR FOOD & BEVERAGE APPLICATIONS



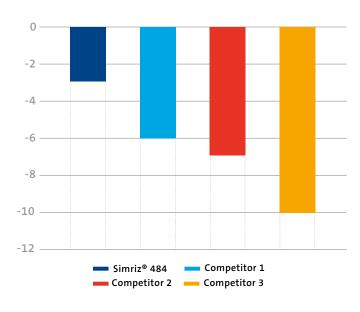
**Designed for thermal stability and nearly universal protection** against chemical attack, Freudenberg's proprietary family of Simriz® perfluoroelastomer compounds offer premier sealing performance. Simriz® compounds approach PTFE chemical resistance while resisting high temperatures up to 325°C.

## Freudenberg is the only vertically integrated supplier of perfluoroelastomer.

Traceable – Accountable – Customized – Controlled.

**Simriz® 484** performs well in a wide variety of harsh chemicals as well as at high temperatures. Also Simriz® 484 is FDA compliant and USP class VI compliant, making it the perfect match for any Food & Beverage and Pharmaceutical application.

#### Change in Hardness Steam 72h / 200 °C (392 °F)



#### **VALUES FOR THE CUSTOMER**

- Broad chemical resistance in a large number of harsh chemical environments (e.g. CIP/SIP media)
- Low compression set resulting in an increased product life time
- FDA compliant
- USP class VI compliant
- Meets 3-A® Sanitary Standards
- ADI free
- Without equal. Patented cross-linking system provides superior performance beyond the limits of every other competitor FFKM product
- Demonstrated performance. Successfully used in many customer applications
- Vertically integrated. Freudenberg Sealing Technologies is the only vertically integrated O-ring manufacturer in the world
- Cost efficient. As the only vertically integrated O-ring manufacturer down to the monomers Freudenberg Sealing Technologies is able to provide the most cost efficient FFKM O-rings

#### TYPICAL APPLICATIONS

- CIP / SIP Equipment
- Pumps
- Valves
- Mechanical Seals
- Dispenser Systems
- Mixers





### **FEATURES AND BENEFITS**

| Mechanical Properties                                                   |                   |
|-------------------------------------------------------------------------|-------------------|
| Hardness (Shore) DIN ISO 7619-1, Shore A, 23 °C                         | 75                |
| Temp. Range in °C                                                       | -20 °C to +230 °C |
| Temp. Range in °F                                                       | -4 °F to +446 °F  |
| Tensile Strength (psi)                                                  | 3205              |
| Tensile Strength (MPa)                                                  | 22.1              |
| Elongation (%)                                                          | 165               |
| Compression Set (%)<br>70hr at 204 °C (400 °F) per ASTM D395 - Method B | 33                |

| Chemical Environment                                                    |    |
|-------------------------------------------------------------------------|----|
| Hot Water / Steam                                                       | ++ |
| Dry Heat                                                                | +  |
| Organic Acid (e.g. Acetic Acid)                                         | +  |
| Inorganic Acids (e.g. Nitric Acid)                                      | +  |
| Alkalis / Bases                                                         | ++ |
| Acrylic or Vinyl Monomers                                               | ++ |
| Amines                                                                  | ++ |
| Hot Amines                                                              | ++ |
| Ketones                                                                 | ++ |
| Ester                                                                   | ++ |
| Ethers                                                                  | ++ |
| Aldehydes                                                               | ++ |
| Hydrocarbons                                                            | ++ |
| Sour Gas (e.g. Hydrogen Sulfide, Peroxide)                              | ++ |
| Silanes and Chlorosilanes                                               | ++ |
| Hot Lubricants                                                          | ++ |
| Strong Oxidizers (e.g. Nitric Acid, O <sub>3</sub> , CIO <sub>3</sub> ) | -  |
| Fluorinated Fluids                                                      | ++ |
| Synthetic Oils                                                          | ++ |
| Alcohols                                                                | ++ |

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