V70H Food grade fluoroelastomer

ORING

Description

V70H is a copolymer FKM elastomer material suitable for repeated use in equipment associated with the production of dry, aqueous and fatty foodstuffs intended for human consumption.

Formulated using only those ingredients determined by the United States Federal Food and Drug Administration (FDA), V70H has undergone extraction testing in accordance with Code of Federal Regulations Title 21 (CFR21), Section 177.2600.

V70H also complies with the requirements of USP 25, NF20, 2002, Class 6 and has been tested in accordance with 3-A Sanitary Standards 18-03 Class 1.

Key Attributes

- ► Low compression set provides long-term sealing performance.
- Excellent resistance to oils
- FDA compliant extraction tested to CFR 21 § 177.2600(e,f)
- USP Class VI <88> and USP <87> compliant
- 3-A Sanitary Standards Class 1 compliant
- Free from Animal Derived Ingredients

Typical Applications

- Pharmaceutical and bio-analytical equipment
- Food and dairy processing equipment
- Brewing equipment

Other Materials Available

V70SW FDA-compliant, steam resistant FKM V60H food grade FDA-compliant FKM (60 °IRHD) V80H food grade FDA-compliant FKM (80 °IRHD)

Perlast[®] perfluoroelastomers when resistance to aggressive chemicals and high temperatures are required

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FDA Regulation Extraction Test Results

| Media | Time | Authorised limits (mg/sq.inch) | Result |
|-----------|--------------------|-----------------------------------|------------|
| Distilled | First 7 hours | 20 | <0.1, <0.1 |
| water | 2 succeeding hours | 1 | <0.1, <0.1 |
| n-Hexane | First 7 hours | 175 | 0.2, <0.1 |
| | 2 succeeding hours | 4 | <0.1, <0.1 |







Typical Material Properties

| Property | ASTM | ISO | Value |
|---|-------------------------------|-----------------------------------|--------------------------|
| Material Type | FKM | FPM | Copolymer |
| Colour | | | Black |
| Hardness: (°IRHD) | D1415 | ISO48 | 74 |
| Tensile Strength (MPa) | D412 | ISO37 | 12 |
| Elongation at break (%) | D412 | ISO37 | 200 |
| Compression Set: 24 hrs @ 200°C (392°F) | D395 | ISO815 | 20% |
| Minimum Operating Temperature | | | -20°C (-4°F) |
| Maximum Operating Temperature | | | +200°C (+392°F) |
| Heat Ageing: 72 hrs @ 250°C (482°F) Hardness change (points) Tensile strength change Elongation at break change | D573 D1415 D412 D412 | ISO188 ISO48 ISO37 ISO37 | ±15 iRHD ±30% -50% |

SPECIAL NOTE: This information is to the best of our knowledge accurate and reliable. However, PPE Ltd makes no warranty, expressed or implied, that parts manufactured from this material will perform satisfactorily in the customer's application. It is the customer's responsibility to evaluate parts prior to use, especially in applications where their failure may result in injury and/or damage. It should also be noted that all elastomeric parts have a finite life, therefore a regular program of inspection and replacement is strongly recommended. The material properties above should not to be used for specification purposes.