



Fluoro Elastomer (FPM-FDA)

SPECIFICATIONS

| Property | Spec | Value |
|---|--------------|--------------|
| Hardness A | ISO 868 | 85A ± 5 |
| 100% Modulus (MPa) | DIN 53 504 | ≥6 |
| Tensile Strength (MPa) | DIN 53 504 | ≥8 |
| Elongation at Break | DIN 53 504 | ≥150% |
| Tear Strength | DIN ISO 34-1 | - |
| Specific Gravity (kg/m ³) | ISO 1183 | 2440 |
| Rebound Elasticity | DIN 53 512 | 7% |
| Abrasion (mm ³) | DIN 53 516 | 220 |
| Compression Set: 24hr, 70C, 25% deflection | ISO 815 | ≤7% |
| Compression Set: 24hr, 100C, 25% deflection | ISO 815 | ≤4% |
| Compression Set: 24hr, 150C, 25% deflection | ISO 815 | ≤14% |
| Min Service Temperature | | -20C -4F |
| Max Service Temperature | | 220C 428F |
| Max Temperature Water/Steam | | - |
| Max Temperature Hot air/Short | | 300C 572F |
| Color | | Brown |

DESCRIPTION

MF01 is a FPM material with hardness 85A, specially compounded for food use applications FKM typically has 65 to 70% fluorine content. There are five types of FKM, and they are differentiated either by trade names or specific end-use characteristics. The higher the fluorine content, the better fluid resistance they have. On the downside, higher fluorine content can reduce physical properties of an elastomer in regards to being prone to compression set or extrusion problems. In general FKM has good resistance to mineral oils, greases and some phosphate esters (HFD), silicon oils or grease, chlorinated solvents, air, ozone and fuels. The general grade FKM is not recommended for steam and hot water that is above 100°C, phosphate esters like Skydrol, polar solvents, fuels containing methanol, gear lubricants with EP additives, engine oils with amine additives, amines, alkalis, organic acids, and brake fluids. For special applications including the above incompatible environments, specialty types of FKM are available and need to be prudently selected. FKM can be molded by compression, transfer and injection molding processes. FKM can be a cost-effective material when its expected life time exceeds that which many other elastomers can provide.