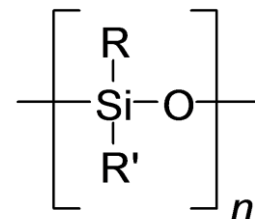


Methyl-Vinyl-Silicon (Silicon MVQ/FDA)

SPECIFICATIONS

| Property | Spec | Value |
|---------------------------------------|-----------|------------------|
| Hardness | ISO 868 | 80A |
| Specific Gravity (g/cm ³) | ISO 1183 | 1.18 |
| Tensile Strength (N/mm ²) | DIN 53504 | 9 |
| Ultimate Elongation | DIN 53504 | 300% |
| Modulus @ 100% (N/mm ²) | DIN 53504 | 4 |
| Compression Set: 100C @ 24 Hrs | ISO 815 | <7% |
| Minimum Service Temp. | | -60° C -76° F |
| Maximum Service Temp. | | 220° C 428° F |
| Maximum Service Temp. Water/Steam | | 120° C 248° F |
| Color | | Translucent |



DESCRIPTION

MS02 is a Silicon material with hardness 80 Shore A, specially compounded for food applications. The unique chemistry of silicone elastomer is the presence of the silicon-oxygen (Si-O) backbone instead of a carbon-carbon bond present in most polymers. The silicon-oxygen bond is flexible as well as stable over an extended range of temperatures. This same chemical structure has extraordinary resistance to oxidation degradation. Many different side groups can be attached to the Si-O backbone to modify the chemistry for particular applications. Carbon-carbon double bonds are attached as a side group for vulcanization to improve compression set and hot oil resistance. Compared with other elastomers, silicone has rather mediocre tensile, abrasion and tear strength due to the weak strength of Si-O bond. To achieve useful engineering performance, silicone elastomers are often reinforced with high surface area fillers. Silicone rubber articles are molded by compression, transfer, extrusion or injection processes.