

MS01

Methyl-Vinyl-Silicon (Silicon MVQ)

SPECIFICATIONS

Property	Spec	Value
Hardness	DIN 53505	85A
Specific Gravity (g/ cm³)	DIN 53479	1.60
Tensile Strength (N/ mm²)	DIN 53504	7.5
Ultimate Elongation	DIN 53504	150%
Elasticity	DIN 53512	35%
Tear Strength (N/ mm²)	DIN 53507	12
Compression Set 175C 22 Hrs	DIN 53517	34%
Minimum Service Temp.		-60° C -76° F
Maximum Service Temp.		220° C 428° F
Maximum Service Temp. Water/Steam		120° C 248° F
Color		Lt. Blue

DESCRIPTION

MS01 is a Silicon material with hardness 85 Shore A, specially compounded for standard applications. The unique chemistry of silicone rubber 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.