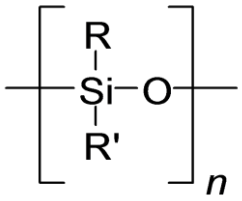
systemseals

MATERIAL SPECIFICATION SHEET

MS37

Silicone Elastomer
(SIL 50 Red)



SPECIFICATIONS

Property	Spec	Value
Hardness	DIN 53505	50A ± 5
Specific Gravity	DIN 53479	1.21 g/cm³ ± 0.03
Tensile Strength	DIN 53504 S2	5.5-9.0 Mpa
Elongation on Break	DIN 53504 S2	250-400%
Tear Resistance	ASTM D 624 B	12-22 N/m
Compression Set 175°C; 22hrs	DIN 53517 B	10-30%
Compression Set -40°C; 22hrs	ISO 815	10-30%
Brittle Point	DIN 53546	_ -70° C

DESCRIPTION

MS37 is a Silicone material with hardness 50, specially compounded for standard 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 elastomer articles are molded by compression, transfer, extrusion or injection processes.