



Overview

SI550R55 is an A-A-59588 (1A-50) and (1B-50) spec, 55 shore A PVMQ silicone offering improved low temperature and compression set resistance at a competitive price. It has excellent resistance to thermal degradation & compression set.

Features & Benefits

- A-A-59588 (1A-50) and (1B-50)
- Improved low temperature and compression set resistance
- Exceptional environmental resistance (O₂, O₃, & UV)
- Fungal resistant

Service Temperature

- -82°C to 205°C (-116°F to 401F)

Specification

- A-A-59588 (1A-50) and (1B-50)
- 4 GE507 A19 B37 EA14 E016 F19 Z1

Test Data

Table 1. Physical Properties

Test	Requirements	Results
Color	Orange	Orange
Hardness, Shore A	55+/-5	55
Tensile Strength, psi (MPa)	725 min	1204 (8.3)
Elongation	250% min	580%
Brittleness, °C	-75 min	-76
TR-10, °C		-75



Table 2. A19 – Heat Aging – 70 hrs at 225°C

Test (Change)	Requirements	Results
Hardness, Shore A	+10 max	+7
Tensile Strength, %	-30 max	+8
Elongation, %	-30 max	-26

Table 3. B37 – Compression Set – 22 hrs at 175°C

Test (Change)	Requirements	Results
Permanent Set, %	50 max	10

Table 4. EA14 – Water Resistance – 70 hrs at 100°C

Test (Change)	Requirements	Results
Hardness, Shore A	-5 to +5	-1
Volume, %	-5 to +5	+1

Table 5. E016 – IRM 901 Oil Resistance – 70 hrs at 150°C

Test (Change)	Requirements	Results
Hardness, Shore A	-15 to 0	-8
Tensile Strength, %	-20 max	+7
Elongation, %	-20 max	+2
Volume, %	0 to +15	+6

Table 6. F19 – Low Temp Brittleness Test – 3 mins at -55°C

Test (Change)	Requirements	Results
Brittleness	Non-Brittle	Non-Brittle