



Overview

SI500R60 is a A-A-59588 (3B-50) spec, 50 shore A silicone offering improved tear and flex resistance at a competitive price. It has excellent resistance to thermal degradation & compression set. Compare to Parker materials.

Features & Benefits

- A-A-59588 (3B-50)
- Improved tear & flex resistance
- Low compression set
- Exceptional environmental resistance (O₂, O₃, & UV)
- Fungal resistant

Service Temperature

- -70°C to 205°C (-94°F to 401F)

Specification

- A-A-59588 Class 3B, Grade 50

Test Data

Table 1. Physical Properties		
Test	Requirements	Results
Color	Orange	Orange
Hardness, Shore A	50+/-5	52
Tensile Strength, psi (MPa)	1200 min	1247 (8.6)
Elongation	500% min	550%
Tear Resistance, kN/m	26.25 min	32



Table 2. Heat Aging – 70 hrs at 200°C

Test (Change)	Requirements	Results
Hardness, Shore A	-10 to 10	+3
Tensile Strength, %	-25 max	-9
Elongation, %	-30 max	-21

Table 3. Compression Set – 70 hrs at 150°C

Test (Change)	Requirements	Results
Permanent Set, %	20 max	17

Table 4. Water Immersion – 70 hrs at 100°C

Test (Change)	Requirements	Results
Volume, %	+5 max	+2

Table 5. Low Temp Brittleness Test – 3 mins at -70°C

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

Table 6. Flex Resistance (Crack Growth)

Test (Change)	Requirements	Results
140,000 Cycles	No Cracks	No Cracks

Table 7. Impact Resilience

Test (Change)	Requirements	Results
ASTM D 2632, %	45 min	48