

## Material Test Report

**Compound S70-B602**

**Silicone, Red, UL 157**

Material Summary		
Material Type:	Silicone Rubber	
Durometer:	70	
Color:	Red	
Special Properties:	UL 157	
Cure Type:	Peroxide	
Recommended Temperature Range (Static):	-55°C (-67°F) to 225°C (437°F)	
Meets Specification:	ASTM D2000 M5GE706 A19 B37 EA14 EO16 EO36 F19 G11	
Original Properties	Requirements	Typical Results
Hardness, (Shore A) (ASTM D2240-15, Type A)	70±5	70
Tensile Strength, psi(MPa) (ASTM D412-16, Method A)	870(6)(min)	956(6.59)
Elongation, (%) (ASTM D412-16, Method A)	150(min)	218
Modulus at 100%, psi(MPa) (ASTM D412-16, Method A)	-	511(3.52)
Density, (Mg/m <sup>3</sup> ) (CNS 5341-96, Method A)	-	1.34
TEAR RESISTANCE, G11	Requirements	Typical Results
(ASTM D624-00, Die B), (kN/m)	9(min)	11.43
HEAT AGE, A19 (70 hrs. @ 225°C)	Requirements	Typical Results
Hardness Change, pts.	+10(max)	-3
Tensile Strength Change, %	-25(max)	-24
Elongation Change, %	-30(max)	-23
Weight Change, %	-	-0.6
COMPRESSION SET, B37 (22 hrs. @ 175°C)	Requirements	Typical Results
Compression Set, %, ASTM D395-18, Method B	25%(plied)(max)	22.5
WATER RESISTANCE, EA14 (70 hrs. @ 100°C)	Requirements	Typical Results
Hardness Change, pts.	±5	0
Tensile Strength Change, %	-	-7
Elongation Change, %	-	+7
Volume Change, %	±5	+1.1
IRM 901 OIL, EO16 (70 hrs. @ 150°C)	Requirements	Typical Results
Hardness Change, pts., ASTM D471-16a	-15~0	-7
Tensile Strength Change, %, ASTM D471-16a	-20(max)	+6
Elongation Change, %, ASTM D471-16a	-20(max)	-1
Volume Change, %, ASTM D471-16a	0~+10	+4.7

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IRM 903 OIL, EO36 (70 hrs. @ 150°C)	Requirements	Typical Results
Hardness Change, pts.	-30(max)	-25
Tensile Strength Change, %	-	-6
Elongation Change, %	-	-7
Volume Change, %	+60(max)	+38.6
LOW TEMP BRITTLENESS POINT TEST, F19	Requirements	Typical Results
(3 min. @ -55°C, ASTM D2137-11)	-	-
Sample type: T-50,	-	-
Coolant : Isopropyl alcohol,	-	-
Low Temperature Property,	-	no crack

Report Date: 7/20/2021

Information within this report is believed to be accurate and reliable. However, Global O-Ring and Seal makes no warranty, expressed or implied, that parts supplied in this material will perform satisfactorily in specific applications. It's the customer's responsibility to evaluate prior to use.