



SPEC SEALS TECHNICAL REPORT F900-70 BLUE COLOR FLUROSILICONE COMPOUND

GENERAL PROPERTIES

SPEC SEALS' F900-70 Fluorosilicone meets all the requirements of the popular MIL-R-25988, Class 1, Grade 70 Military Specification and is manufactured using only Dow Corning Fluorosilicone Grade LS-2380U Base Elastomer. Blue Fluorosilicone is often the ideal compound for a broad range of applications including aircraft fuel systems, as well as many industrial applications where a broad temperature range (-100°F to +350°F), dry heat resistance and basic fuel/oil resistance are critical characteristics.

SPEC SEALS F900-70

<u>ASTM or MIL ORIGINAL PROPERTIES</u>	<u>MIL-R-25988/1 Grade 70 Spec</u>	<u>ASTM D2000 SPECIFICATION</u>	<u>LABORATORY PROPERTY</u>
Z1 Durometer, Shore A	70 +/- 5	70 +/- 5	72
Tensile, psi (MPa), Minimum	750 (5)	870 (6)	1056 (7)
Elongation, % Minimum	125	150	205
Specific Gravity	-	-	1.557
MIL <u>HEAT AGE, 70 HRS @ 200C (392F)</u>			
Durometer Change, Points	-5/+10		+3
Tensile Strength Change, % Maximum	-25		-10
Elongation Change, % Maximum	-25		-12
Weight Loss, % Maximum	-2		-1.4
A19 <u>HEAT AGE, 70 HRS @ 225C (437F)</u>			
Durometer Change, Points		+15	+4
Tensile Strength Change, % Maximum		-45	-24
Elongation Change, % Maximum		-45	-34
Z2 <u>COMPRESSION SET, 22 HRS @ 175C (347F)</u>			
Original Deflection, % Maximum	25 (Button)	25 (Button)	10
MIL <u>FLUID IMMERSION, TT-S-735 Type III, 22 HRS @23C (73F)</u>			
Durometer Change, Points	-20		-11
Tensile Change, % Maximum	-45		-36
Elongation Change, % Maximum	-35		-27
Volume Change, % Maximum	1/+25		+20.3
EF31 <u>FUEL AGE, 70 HRS @23C (73F) in Reference Fuel C</u>			
Durometer Change, Points		0/-15	-13
Tensile Change, % Maximum		-60	-13
Elongation Change, % Maximum		-50	-13
Volume Change, %		0/+25	+19
EO36 <u>FLUID RESISTANCE, 70 HRS @150C (302F) in IRM 903 OIL</u>			
Durometer Change, Points		0/-10	-1
Tensile Change, % Maximum		-35	+1
Elongation Change, % Maximum		-30	+11
Volume Change, %		0/+10	+5.8
F19 <u>LOW TEMPERATURE BRITTLENESS</u>			
ASTM D2137, Method A, 3 Minutes @ -55C		Non-Brittle	Pass

SPECIFICATIONS MET

MIL-R-25988 Class 1, Grade 70

ASTM D2000-99 Grade M2FK606 A19 EF31 EO36 F19 Z1=70 Duro, Z2 = 25% Maximum Compression Set

MANUFACTURER'S CROSS REFERENCE

F900-70 is designed to meet or exceed the properties of these popular Fluorosilicone Compounds:

L1120-70, F80, 11647, 70157, 1903-70