

Fluorosilicone is a widely used elastomer that can be compounded to meet a wide range of applications. When compared with silicone, fluorosilicone offers improved fuel and mineral oil resistance but poor hot air resistance. This material is widely used in semiconductor ashing equipment for its resistance to oxygen plasma.

ABOUT #F1001

F1001 is a military grade grade, 70A durometer fluorosilicone. It is specifically manufactured to conform to AMS and MIL specifications* & for use in aerospace applications.

FEATURES

- Excellent flexibility and resistance to compression set
- Excellent resistance to aging and weather-sunlight
- Resistance to oxidizing chemicals, animal and vegetable oils, fuels, aromatic and chlorinated solvents
- Resistant to diluted alkalies, diester oils, aliphatic and aromatic fluorocarbons, silicone oil, toluene, benzene, ozone and oxidative environments.

APPLICATION EXAMPLES

- Aerospace
- Semiconductor ashing
- Aerospace

ADDITIONAL INFORMATION

- Service Temperature of -100° to 350°F
- Spec: MIL-DTL-25988, AMS-R-25988, MIL-R- 25988 Class 1, Type 1, Rev C.

This information is accurate and reliable to the best of our knowledge. However, Marco Rubber makes no warranty, expressed or implied, that parts manufactured from this material will perform satisfactorily in the customer's application. It is the customer's responsibility to evaluate parts prior to use.

PHYSICAL PROPERTIES

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A, ASTM D2240	70 +/- 5	70
Color	Blue	Blue
Tensile Strength, psi, ASTM D1414	750 min.	950
Ultimate Elongation, %, ASTM D1414	125	220
Specific Gravity, ASTM D297	1.51 +/- .03	1.51
HEAT RESISTANCE – ASTM D 573 (70 hrs. @ 437°F)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	-5 to +10	+1
Tensile Strength Change, %, ASTM D1414	-25 (max)	-10
Ultimate Elongation Change, %, ASTM D1414	-25 (max)	-3
Weight Loss, %, ASTM D297	-2 max.	-0.2
COMPRESSION SET – ASTM D 395 Method B and ASTM D1414	ASTM D2000 Requirements	Typical Test Results
Permanent Set, %, 70 hrs. at 75°F	15 max	4
Permanent Set, %, 22 hrs. at 347°F	30 max	10
FLUID RESISTANCE –AMS3021 – ASTM D 471 and ASTM D1414 (70 hrs. @ 394°F)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	+/- 15	-8
Tensile Strength Change, %, ASTM D1414	-40 max.	-20
Ultimate Elongation Change, %, ASTM D1414	-25 max.	-3
Volume Change, %, ASTM D471	+1 to +15	+10
FUEL IMMERSION TT-S-735 Type III - ASTM D 471 and ASTM D1414, (22 hrs. @ 75°F)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	-20	-9
Tensile Strength Change, %, ASTM D1414	-45	-21
Ultimate Elongation Change, %, ASTM D1414	-35	-21
Volume Change, %, ASTM D471	+1 to +25	+18
COMPRESSION SET in AMS 3021 Fluid, ASTM D395 Method B and ASTM D1414, (22 hrs at 392°F)	ASTM D2000 Requirements	Typical Test Results
Permanent Set, %	30 max.	18
TEMPERATURE RETRACTION – ASTM D1329	Specification	Typical
TR-10, Degrees F	-70 max.	-83

*F1001 is a non QPL Listed Compound. For a QPL listed compound version-we recommend F1033.