
O-Ring Compound F70 Data Sheet

Fluorosilicone Rubber (FVMQ)
70 Durometer, Blue

General Information:

Fluorosilicone (FVMQ) is like side chains of silicone rubber, bonding trifluoropropyl, methyl and vinyl. The mechanical and physical properties are similar to VMQ. However, FVMQ offers improved fuel and mineral oil resistance, but less hot air resistance than standard VMQ.

Cure System:

Standard FVMQ compounds are *metal peroxide-cured*.

Temperature Range:

-60°C (-76°F) to 177°C (350°F)

Attributes:

- Color: Blue
- 65-75 Shore A durometer
- Shelf-life: Unlimited

Performs Well In:

- Fuels
- Aromatic mineral oils
- Benzene, Toluene
- Ozone and weather

Doesn't Perform Well In:

- Brake fluids
- Ketones
- Hydrazine

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TEST REPORT FOR O-RING COMPOUND F70

MATERIAL: FLUROSILICONE

DUROMETER: 70

COLOR: BLUE

ASTM* D2000 M2FK706 A19 EF31 EO36 F19 Z1 Z2 Z3

SECTION OF SPEC.	PROPERTIES	REQUIREMENTS	RESULTS	ASTM TEST METHOD
	ORIGINAL PHYSICAL PROPERTIES			
	Hardness, Shore A	70±5	69	D2240-04
	Tensile Strength, psi (MPa)	870 (min.)	1422 (9.8)	D412-98a
	Elongation, percent	150 (min.)	220	D412-98a
	Modulus at 100%, psi (MPa)		606 (4.18)	D412-98a
	Specific Gravity (g/cm ³)		1.465	
A19	HEAT AGE			D573-04
	70 hours at 225°C (437°F)			
	Hardness Change, points	+15 (max.)	+2	
	Tensile Strength Change, percent	-45 (max.)	-25	
	Elongation Change, percent	-45 (max.)	-7	
	Weight Change, percent		-1.7	
Z2	COMPRESSION SET			D395-03, Method B
	22 hours at 175°C (347°F), percent	25 (button) (max.)	8.4	
EF31	FUEL C RESISTANCE			D471-98
	70 hours at 23°C (73.4°F)			
	Hardness Change, points	0 to -15	-14	
	Tensile Strength Change, percent	-60 (max.)	-42	
	Elongation Change, percent	-50 (max.)	-32	
	Volume Change, percent	0 to +25	+24	
EO36	IRM 903 OIL			D471-98
	70 hours at 150°C (302°F)			
	Hardness Change, points	0 to -10	-6	
	Tensile Strength Change, percent	-35 (max.)	-28	
	Elongation Change, percent	-30 (max.)	-14	
	Volume Change, percent	0 to +10	+5.5	
F19	LOW-TEMPERATURE BRITTLENESS POINT			D2137-94, Method A
	3 minutes at -55°C (-67°F)			
	Sample type: T-50			
	Coolant: Methanol			
	Brittleness temperature to nearest 1°C/F	No crack	Pass	

*American Society for Testing and Materials

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