

**Typical Properties of Cured Compound
Compound F-7020**

75 Durometer Viton Rubber (metal bondable) - UL Recognized, Category JMLU2*

Original Physical Properties	Requirements	Results
Hardness, Shore A durometer points		80
Tensile Strength, psi		1822
Elongation, %		254
Modulus @100%, psi		709
Specific Gravity (g/cm ³)		1.89
Compression Set: 22 hr @ 70°C, Air Oven		
Compression Set, %		19
Compression Set: 1000 hr @ 23°C, Test Fluid CE25a		
Compression Set, max %	35	25
Compression Set: 1000 hr @ 23°C, Test Fluid CE85a		
Compression Set, max %	35	26
Compression Set: 1000 hr @ 23°C, Test Fluid FB25a		
Compression Set, max %	35	16
Compression Set: 1000 hr @ 23°C, Test Fluid B100a		
Compression Set, max %	35	23
Compression Set: 1000 hr @ 23°C, Aqueous Urea Solution		
Compression Set, max %	35	22
Hardness Test: 360 hr @ 230°C in Air Oven		
Hardness Change, max durometer points	+10	+4.2
Hardness Test: 1440 hr @ 210°C in Air Oven		
Hardness Change, max durometer points	+10	+3.6
Tensile Set: 100% Elongation @ 23°C		
Tensile Set, max %	25	6.3
Low Temperature Test, 24 hr @ -60°C		
	no cracks	pass
Tensile Strength & Elongation, 1440 hr @ 210°C in Air Oven		
Tensile Strength, min % of original	60	97
Elongation, min % of original	60	84

	Requirements	Results
Tensile Strength & Elongation, 360 hr @ 230°C in Air Oven		
Tensile Strength, min % of original	60	97
Elongation, min % of original	60	78
Tensile Strength & Elongation, 70 hr @ 23°C, Test Fluid Fuel A		
Tensile Strength, min % of original	60	103
Elongation, min % of original	60	98
Tensile Strength & Elongation, 70 hr @ 23°C, Test Fluid Fuel C		
Tensile Strength, min % of original	60	89.6
Elongation, min % of original	60	88.7
Tensile Strength & Elongation, 70 hr @ 23°C, Test Fluid 85% Fuel C/15% Ethanol		
Tensile Strength, min % of original	60	77.5
Elongation, min % of original	60	86.8
Tensile Strength & Elongation, 70 hr @ 23°C, Test Fluid Liquid MPS Gas		
Tensile Strength, min % of original	60	100
Elongation, min % of original	60	94
Tensile Strength & Elongation, 70 hr @ 23°C, Test Fluid IRM No.903 Oil		
Tensile Strength, min % of original	60	96
Elongation, min % of original	60	95
Tensile Strength & Elongation, 70 hr @ 23°C, Test Fluid n-Hexane		
Tensile Strength, min % of original	60	90
Elongation, min % of original	60	88
Tensile Strength & Elongation, 672 hr @ 121°C, Test Fluid No. 6 Fuel Oil		
Tensile Strength, min % of original	60	102
Elongation, min % of original	60	109
Tensile Strength & Elongation, 70 hr @ 23°C, Test Fluid 20% MTBE/80% Fuel A		
Tensile Strength, min % of original	60	82
Elongation, min % of original	60	88
Tensile Strength & Elongation, 70 hr @ 23°C, Test Fluid 20% MTBE/80% Fuel C		
Tensile Strength, min % of original	60	99
Elongation, min % of original	60	103
Tensile Strength & Elongation, 70 hr @ 23°C, Test Fluid 20% ETBE/80% Fuel A		
Tensile Strength, min % of original	60	84
Elongation, min % of original	60	88

	Requirements	Results
Tensile Strength & Elongation, 70 hr @ 23°C, Test Fluid 20% ETBE/80% Fuel C		
Tensile Strength, min % of original	60	87
Elongation, min % of original	60	94
Tensile Strength & Elongation, 1000 hr @ 23°C, Test Fluid CE25a		
Tensile Strength, min % of original	60	85
Elongation, min % of original	60	94
Tensile Strength & Elongation, 1000 hr @ 23°C, Test Fluid CE85a		
Tensile Strength, min % of original	60	68
Elongation, min % of original	60	87
Tensile Strength & Elongation, 1000 hr @ 23°C, Test Fluid FB25a		
Tensile Strength, min % of original	60	97
Elongation, min % of original	60	100
Tensile Strength & Elongation, 1000 hr @ 23°C, Test Fluid Fuel B100a		
Tensile Strength, min % of original	60	97
Elongation, min % of original	60	98
Tensile Strength & Elongation, 1000 hr @ 23°C, Test Fluid Aqueous Urea Solution		
Tensile Strength, min % of original	60	101
Elongation, min % of original	60	106
Visual Examination and Hand Flexing, 360 hr @ 230°C		
Signs of deterioration when visually examined	none	pass
Signs of deterioration when hand flexed	none	pass
Extraction Test, 70 hr @ 23°C, Test Fluid Fuel A		
Extraction, max %	-10	0
Extraction Test, 70 hr @ 23°C, Test Fluid Fuel C		
Extraction, max %	-10	-0.7
Extraction Test, 70 hr @ 23°C, Test Fluid 85% Fuel C/15% Methanol		
Extraction, max %	-10	-2.9
Extraction Test, 70 hr @ 23°C, Test Fluid 85% Fuel C/15% Ethanol		
Extraction, max %	-10	-1.8
Extraction Test, 70 hr @ 23°C, Test Fluid Liquid MPS Gas		
Extraction, max %	-10	0

	Requirements	Results
Extraction Test, 70 hr @ 23°C, Test Fluid n-Hexane		
Extraction, max %	-10	-0.1
Extraction Test, 70 hr @ 23°C, Test Fluid 20% MTBE/80% Fuel A		
Extraction, max %	-10	-1.6
Extraction Test, 70 hr @ 23°C, Test Fluid 20% MTBE/80% Fuel C		
Extraction, max %	-10	-0.1
Extraction Test, 70 hr @ 23°C, Test Fluid 20% ETBE/80% Fuel A		
Extraction, max %	-10	-0.7
Extraction Test, 70 hr @ 23°C, Test Fluid 20% ETBE/80% Fuel C		
Extraction, max %	-10	-1.0
Extraction Test, 1000 hr @ 23°C, Test Fluid CE25a		
Extraction, max %	-10	-1.1
Extraction Test, 1000 hr @ 23°C, Test Fluid CE85a		
Extraction, max %	-10	-3.6
Extraction Test, 1000 hr @ 23°C, Test Fluid FB25a		
Extraction, max %	-10	-0.1
Extraction Test, 1000 hr @ 23°C, Test Fluid B100a		
Extraction, max %	-10	-0.3
Extraction Test, 1000 hr @ 23°C, Test Fluid Aqueous Urea		
Extraction, max %	-10	-0.1
Volume Change Test, 70 hr @ 23°C, Test Fluid Fuel A		
Volume Change, %	-1 to +40	+0.6
Volume Change Test, 70 hr @ 23°C, Test Fluid Fuel C		
Volume Change, %	-1 to +40	+4.3
Volume Change Test, 70 hr @ 23°C, Test Fluid 85% Fuel C/15% Ethanol		
Volume Change, %	-1 to +40	+9.0
Volume Change Test, 70 hr @ 23°C, Test Fluid Liquid MPS Gas		
Volume Change, %	-1 to +25	+1.1

	Requirements	Results
Volume Change Test, 70 hr @ 23°C, Test Fluid IRM No. 903 Oil		
Volume Change, %	-1 to +25	+1.9
Volume Change Test, 672 hr @ 121°C, Test Fluid No. 6 Fuel Oil		
Volume Change, %	-1 to +25	+4.4
Volume Change Test, 70 hr @ 23°C, Test Fluid n-Hexane		
Volume Change, %	-1 to +25	+1.3
Volume Change Test, 70 hr @ 23°C, Test Fluid 20% MTBE/80% Fuel A	-1 to +25	+0.9
Volume Change, %	-1 to +40	+8.0
Volume Change Test, 70 hr @ 23°C, Test Fluid 20% MTBE/80% Fuel C		
Volume Change, %	-1 to +40	+1.4
Volume Change Test, 70 hr @ 23°C, Test Fluid 20% ETBE/80% Fuel A		
Volume Change, %	-1 to +40	+4.3
Volume Change Test, 70 hr @ 23°C, Test Fluid 20% MTBE/80% Fuel C	-1 to +40	+0.8
Volume Change, %	-1 to +40	+4.9
Volume Change Test, 1000 hr @ 23°C, Test Fluid CE25a		
Volume Change, %	-1 to +40	+5.5
Volume Change Test, 1000 hr @ 23°C, Test Fluid CE85a		
Volume Change, %	-1 to +40	+14.7
Volume Change Test, 1000 hr @ 23°C, Test Fluid FB25a		
Volume Change, %	-1 to +40	+1.2
Volume Change Test, 1000 hr @ 23°C, Test Fluid B100a		
Volume Change, %	-1 to +40	+1.0
Volume Change Test, 1000 hr @ 23°C, Test Fluid Aqueous Urea Solution		
Volume Change, %	-1 to +40	+0.6
Ozone Exposure Test, 70 hr @ 40°C, 100 mPa ozone concentration	no cracks	pass
Ozone Exposure Test, 70 hr @ 40°C, 12500 mPa ozone concentration	no cracks	pass

***Recognized End Use Applications per UL157, UL50/50E, UL87A, UL87B, UL87C, UL 2586A, UL 2586B**

- Gasoline
- Gasoline/Alcohol blends up to 15% alcohol (ethanol)
- Naphtha or kerosene
- MPS gas
- Manufactured gas or natural gas
- Diesel fuel, fuel oil or lubricating oil
- Heated fuel oil
- Liquefied petroleum (LP) gas
- Atmospheric ozone
- Generated ozone
- Suitable for use in UL 50 “Enclosures for Electrical Equipment”, (including oil immersion) gasket applications
- Suitable for use in UL 50E (periodic recompression) “Enclosures for Electrical Equipment, Environmental Considerations”, (including oil immersion) gasket applications
- Suitable for use with gasoline/ethanol blends having an ethanol content up to 85% (E85) for static applications
- Suitable for use with gasoline/ethanol blends having an ethanol content up to 25% (E25) for static applications
- Suitable for use with gasoline/ethanol blends having an ethanol content up to 85% (E85) for dynamic applications
- Suitable for use with gasoline/ethanol blends having an ethanol content up to 25% (E25) for dynamic applications
- Suitable for use with gasoline/ethanol blends having an ethanol content greater than 15% (E85) for static applications, UL 87A and UL 2586A
- Suitable for use with gasoline/ethanol blends having an ethanol content greater than 15% (E85) for dynamic applications, UL 87A and UL 2586A
- Suitable for use with diesel fuel, biodiesel fuel, diesel/biodiesel blends with nominal biodiesel concentrations up to 20 percent (B20), kerosene, and fuel oil for static applications, UL 87B and UL 2586B
- Suitable for use with diesel fuel, biodiesel fuel, diesel/biodiesel blends with nominal biodiesel concentrations up to 20 percent (B20), kerosene, and fuel oil for dynamic applications, UL 87B and UL 2586B
- Suitable for use with biodiesel fuel for static applications, UL 87B and UL 2586B
- Suitable for use with biodiesel fuel for dynamic applications, UL 87B and UL 2586B
- Suitable for use with diesel exhaust fluid for static applications, UL 87C
- Suitable for use with diesel exhaust fluid for dynamic applications, UL 87C
- Suitable for use in 0 to 20% MTBE/gasoline blends
- Suitable for use in 0 to 20% ETBE/gasoline blends

The data shown here are provided as an engineering guide only, and should not be used for the purpose of establishing performance limits. These values were obtained using established standard test procedures, and are believed to be reliable. However, due to the variables that may be encountered in actual use, it is always advisable to test the material under actual service conditions before specification.