

Ascend Sealing Technology Compound: V10180GR

Ascend Sealing has developed Fluorocarbon (Viton™, FPM, FKM) to be the most cost-effective compound, without sacrificing performance for general usage. Fluorocarbon is one of the most popular material for sealing application. We specially formulated V10180GR for good resistance to common lubricants and oils with ideal mechanical properties. As for general purpose, V10180GR is a sulfur-cured compound with good balance between physical and chemical resistance.

Service Temperature: -15°F to 400°F (-26°C to 204°C)

Ascend Sealing provides a wide range of Fluorocarbons. For additional technical support, please contact us at customer_service@ascendsealing.com.

Compatible

- High vacuum
- Strong acid
- Fuel or blend with methanol or ethanol
- Diesel or blend with biodiesel
- Mineral oil and grease
- Silicone oil and grease
- Petroleum products
- Ozone, weather and very high temperature air

Incompatible

- Superheat steam
- Low molecular weight organic acids (formic and acetic acids)
- Phosphate ester based hydraulic fluids- Skydrol®
- Ketones
- Low molecular weight esters and ethers

Physical Properties

MATERIAL :	FLUOROCARBON RUBBER	E-07-C
COMPOUND:	V10180GR	
SPEC.:	ASTM D2000 M2HK810 A1-10 B38 EF31 EO78 Z1	
COLOR:	Dark Green	

<u>Original Physical Properties</u>	<u>Requirements</u>	<u>Results</u>
Hardness,(shoreA)(ASTM D2240-05)	80±5	84
Tensile Strength,(psi(MPa))(ASTM D412-06a)	1450(10)(min)	2329(16.06)
Elongation,(%)(ASTM D412-06a)	150(min)	187
Modulus at 100%,(psi(MPa))(ASTM D412-06a)		1221(8.42)
Specific Gravity,(g/cm ³)		1.88

A1-10 Heat age, 70 Hrs @ 250 °C (ASTM D573-04)

Hardness Change, pts.	+10(max)	+2
Tensile Strength Change, %	-25(max)	+2
Elongation Change, %	-25(max)	-13
Weight Change, %		-2.0

B38 Compression set, 22 Hrs @ 200 °C (ASTM D395-14,Method B)

50%(plied)(max)	21.5
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EF31 ASTM Fuel C Resistance, 70 Hrs @ 23 °C (ASTM D471-12a)

Hardness Change, pts.	±5	-3
Tensile Strength Change, %	-25(max)	-12
Elongation Change, %	-20(max)	-11
Volume Change, %	0~+10	+2.9

EO78 ASTM No. 101 Oil, 70 Hrs @ 200 °C (ASTM D471-12a)

Hardness Change, pts.	-15~+5	-8
Tensile Strength Change, %	-40(max)	-12
Elongation Change, %	-20(max)	-1
Volume Change, %	0~+15	+8.6

Z1 Low Temperature Retraction Test (TR Test) (ASTM D1329-08)

Testing Elongation 50%
 The Equipment of measure temperature: thermocouple
 Length of Sample: 51 mm
 Rate of Temperature increasing: 1°C/min
 Test Temperature: 26 °C

Coolant :
Methanol
TR10, °C

-16.1

Viton™ is a registered trademark of The Chemours Company.

Statement and recommendation provided in this data sheet correspond to Ascend Sealing Technology's best knowledge on the subject at the date of its publication. The user should conduct their own analysis and testing and is solely responsible for making the final selection of the system and component. Since Ascend Sealing Technology cannot anticipate all the application parameters in actual conditions, we do not guarantee the results and assume no liability in connection with any use of this information.

