

Ascend Sealing Technology Compound: S10170RU

Ascend Sealing has developed Styrene-Butadiene rubber (SBR) to be the most cost-effective compound, without sacrifice performance for general usage. SBR is also called Buna® S and is the most widely used synthetic rubber in the world. We specially formulated SBR for good resistance to abrasion. However, SBR is poor resistant to oil and is not suitable in ozone, UV, weathering, and oxygen.

Service Temperature: -67°F to 212°F (-55°C to 100°C)

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

Compatible

- Alcohol
- Non-mineral oil based brake fluid
- Silicone oil and grease
- Water
- Weak acids

Incompatible

- Aromatic, aliphatic, or halogenated hydrocarbons
- Mineral oils
- Petroleum oils and fuels
- Strong acids

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Physical Properties

MATERIAL :	SILICONE RUBBER
COMPOUND :	S10170RU
SPEC. :	ASTM D2000 M7GE705 A19 B37 EA14 EO16 EO36 F19 G11
COLOR :	RUST

	<u>Original Physical Properties</u>	<u>Requirements</u>	<u>Results</u>
	Hardness, (Shore A) (ASTM D2240-05)	70±5	72
	Tensile Strength, psi(MPa) (ASTM D412-15a)	725(5)(min)	919(6.34)
	Elongation, (%) (ASTM D412-15a)	150(min)	228
	Modulus at 100%, psi(MPa) (ASTM D412-15a)		612(4.22)
	Specific Gravity, (g/cm ³)		1.32
<u>G11</u>	<u>Tear Resistance, (ASTM D624-00)</u>	9kN/m(Die B)(min)	14.05
<u>A19</u>	<u>Heat Age, 70 Hrs @ 225 °C (ASTM D573-04)</u>		
	Hardness Change, pts.	+10(max)	+3
	Tensile Strength Change, %	-25(max)	+3
	Elongation Change, %	-30(max)	-27
	Weight Change, %		-4.7
<u>B37</u>	<u>Compression Set, 22 Hrs @ 175 °C (ASTM D395-16, Method B)</u>	30%(plied)(max)	19.7
<u>EA14</u>	<u>Water Resistance, 70 Hrs @ 100 °C (ASTM D471-16a)</u>		
	Hardness Change, pts.	±5	-3
	Tensile Strength Change, %		-1
	Elongation Change, %		-29
	Volume Change, %	±5	+1.4
<u>EO16</u>	<u>IRM 901 Oil, 70 Hrs @ 150 °C (ASTM D471-16a)</u>		
	Hardness Change, pts.	-15~0	-3
	Tensile Strength Change, %	-20(max)	0
	Elongation Change, %	-20(max)	-17
	Volume Change, %	0~+15	+4.2
<u>EO36</u>	<u>IRM 903 Oil, 70 Hrs @ 150 °C (ASTM D471-16a)</u>		
	Hardness Change, pts.	-40(max)	-20
	Tensile Strength Change, %		-18
	Elongation Change, %		-23

	Volume Change, %	+60(max)	+32.0
F19	<u>Low-Temperature Brittleness Point Test, 3 minute @ -55 °C (ASTM D2137-11, Method A)</u>		
	Sample type: T-50,		
	Coolant : Isopropyl alcohol,		
	Brittleness temperature to nearest 1°C,	no crack	pass

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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.

