

# SiSiB SILICONES

## Fluoro Silicone Rubber

### Benefit

- Superior extreme (low-high) temperature performance
- It has very good oil, fuel and liquid resistance.
- It is useable for molding, extrusion and calendering processes.
- Typical applications include aerospace fuel system components, diaphragms, gaskets, hose lining, seals and O-rings.

### General Purpose Fluoro Silicone Rubber

Test item	FSE9240	FSE9250	FSE9260	FSE9270
<b>Basic Performance</b>				
Hardness(Shore A)	40	50	60	70
Density(g/cm3)	1.42	1.43	1.44	1.45
Tensile strength (MPa)	9	9.5	10	9
Elongation at break (%)	510	380	300	230
Tear strength Crescent Type(KN/m)	20	20	20	20
Permanent Compression set (22h@180°C)	10	11	12	14
Resiliency	34	32	30	27
<b>Heat Resistance (70h@230°C)</b>				
Hardness change	3	3	3	3
Tensile strength change (%)	-22.9	-23.5	-19.8	-20.1
Elongation at break change (%)	-32.5	-30.5	-30.1	-32.6
<b>Oil resistance (70h@23°C)</b>				
Hardness change	-8	-8	-6	-6
Tensile strength change (%)	-58	-53	-50	-45
Volume change (%)	25	23	22	21

### High Tear Strength Fluoro Silicone Rubber

Test item	FSE9350	FSE9360
Hardness(Shore A)	50	60
Density(g/cm3)	1.43	1.44
Tensile strength (Mpa)	9	9.5
Elongation at break (%)	450	350
Tear strength Crescent Type(KN/m)	31.4	38
Permanent Compression set(22h@180°C)	20	25

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### Special Purpose (Turbocharger Tube)

Test item	FSE9460	FSE9450
<b>Basic performance</b>		
Hardness(Shore A)	60	50
Density(g/cm3)	1.44	1.2
Tensile strength (Mpa)	8.5	10
Elongation at break (%)	430	850
Tear strength Crescent Type (KN/m)	20	52
Permanent Compression set (22h@180°C)	25%	30%
<b>Bonding</b>		
Peel strength with VMQ (N/mm)	DBPMH 2.2	DCBP 1.8
Aging (22h@200°C)	2	2

### Fluoro Silicone Rubber for Special Purpose (O Ring)

Test item	FSE9550	FSE9560	FSE9570
Hardness (Shore A)	50	60	70
Density (g/cm3)	1.43	1.44	1.45
Tensile strength (Mpa)	8	8	8
Elongation at break (%)	250	220	200
Tear strength Crescent Type (KN/m)	15	15	15
Permanent Compression set (22h@180°C)	6	7	8
Rebound rate	37	35	33

### Fluoro Silicone Rubber for High Temperature

Test item	FSE9650	FSE9660
<b>Basic performance</b>		
Hardness (Shore A)	50	60
Density(g/cm3)	1.43	1.44
Tensile strength (Mpa)	9	9
Elongation at break (%)	320	310
Tear strength (Mpa)	18	18
Permanent Compression set (22h@180°C)	15	15
<b>Heat resistance (70h@230°C)</b>		
Hardness change	2	2

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Tensile strength change (%)	-10	-12
Elongation at break change (%)	-12	-15
<b>Heat resistance (70h@250°C)</b>		
Hardness change	7	6
Tensile strength change (%)	-38.2	-33.4
Elongation at break change (%)	-37	-35

### Economic Copolymer Fluoro Silicone Rubber

Test item	FSE9763	FSE9766	FSE9769
<b>Basic performance</b>			
Hardness (Shore A)	60	60	60
Tensile strength (Mpa)	8	8	8
Elongation at break (%)	470	450	400
Tear strength Crescent Type (KN/m)	18	18	18
Permanent Compression set (22h@180°C)	15	15	15
Rebound rate	43	40	34
<b>Oil resistance</b>			
Volume change (IRM 903 70h@150°C)	30%	14.70%	8.30%
Volume change (Mobil 1# oil 70h@150°C)	18.40%	9.90%	4.40%

### Low Compression Set Fluoro Silicone Rubber

Test item	FSE9840	FSE9850	FSE9860	FSE9870
Hardness (Shore A)	40	50	60	70
Density (g/cm <sup>3</sup> )	1.42	1.43	1.44	1.45
Tensile strength (Mpa)	8	8	9	9
Elongation at break (%)	400	350	310	250
Tear strength (Mpa)	15	15	15	15
Permanent Compression set (22h@180°C)	5%	5%	6%	6%