

C 509-06

Table 1 Physical Requirements of Cellular Elastomeric Materials		
Property	Limit	ASTM Test Method
Compression-deflection, 25% deflection limits:		
kPa (psi)	91 to 168 (13 to 24)	D 4056
Compression set, 22 h @ 700C (1580F) max%	30	D 395, Method B
Heat aging A, 70 h @ 1000C (2120F), change in compression-deflection values: kPa (psi)	0 to + 70 (0 to + 10)	D 865 and D 1056
Dimensional stability, change, max %, after heat aging, 70 h @ 1000C (2120F)	4	11.4
Ozone resistance at 40% elongation, 100 h @ 400C (1040F):		
Type I 100 mPa ozone	no cracks @ 7X magnification	D1149
Type II 300 mPa ozone	no cracks @ 7X magnification	D1149
Low-temperature brittleness @ -400C (- 400F)	pass	
Water absorption, max, % weight	5	C 1083
Flame propagation:		
Option I	100 mm (4in.) max	C 1166
Option II	no limit	
Nonstaining C	no migratory stain	D 925
<p>A After heat aging, surfaces of the specimen shall be neither hard nor brittle. A 150-mm (6 in.) length of the finished extrusion shall exhibit no surface cracks when bent on itself 1800</p> <p>B The specimen shall exhibit no surface cracks when in the extended condition.</p> <p>C This requirement may be waived, subject to agreement between the purchaser and the supplier.</p>		



C 864-05							
Table 1 Elastomeric Compression Seal Gaskets and Accessories Physical Requirements							
Properties	Requirements						ASTM Test Method
Hardness, nominal shore A durometer +/- 5, as specified by the purchaser	40	50	60	70	80	90	D 2240
Compression set, 22 h @ 100C (212F), max %	35	30	30	30	35	40	D 395
Ozone resistance, 100 mPa, 100 h @ 40C (104F), 20 % elongation	<no cracks> at 7X magnification						D 1149 (Specimen A)
Tensile strength, min, Mpa (psi)	10.3 (1500)	10.3 (1500)	11.0 (1600)	12.4 (1800)	12.4 (1800)	12.4 (1800)	D 412, Die C
Elongation at rupture, min, %	400	300	250	200	175	125	D 412, Die C
Heat aging, 70 h, 100 C (212F)							D 573
Hardness increase, max durometer points	10	10	10	10	10	10	
Change in tensile strength, max, %	15	15	15	15	15	15	
Change in elongation, max, %	40	40	40	40	40	40	
Tear strength, min, kN/m (lbf/in.)	26.3 (150)	26.3 (150)	26.3 (150)	17.5 (100)	17.5 (100)	13.1 (75)	D 624, Die C
Brittleness temperature, max, 0C	-40	-40	-40	-40	-40	-40	D 746
Nonstaining	< no migratory stain>						D 925
Flame Propagation							C1166
Option I	< 100 mm (4 in.) max. >						
Option II	<no limit>						



C 1115-06

Table 1 Requirements for Dense Elastomeric Silicone Rubber Gaskets and Accessories, Type T-Tear Resistant						
Property	Hardness					Test Method
	3	4	5	6	7	
Low temperature flexibility	A	A	A	A	A	D 2137
Hardness, Type A durometer, +/- 5 points	30	40	50	60	70	D 2240
Compression set, max %	30	30	30	30	30	D 395
Tensile strength, min, Mpa (psi)	7 (1015)	8 (1160)	8 (1160)	8 (1160)	7 (1015)	D 412
Ultimate elongation, min %	500	500	500	400	200	D 412
Heat aging						D 573
Hardness change, max durometer points	+/- 10	+/- 10	+/- 10	+/- 10	+/- 10	
Tensile strength change, max %	+/- 20	+/- 20	+/- 20	+/- 20	+/- 20	
Ultimate elongation change, max %	+/- 30	+/- 30	+/- 30	+/- 30	+/- 30	
Ozone Resistance	B	B	B	B	B	D 1149 (Specimen A)
Tear strength, min, kN/m (ppl)	25 (143)	25 (143)	26 (149)	26 (149)	25 (143)	D 624
Flame propagation, mm (in.)	100 (4)	100 (4)	100 (4)	100 (4)	100 (4)	C 1166
Specific gravity	D	D	D	D	D	D 792
Staining	E	E	E	E	E	D 925
Color	F	F	F	F	F	
A No Failure						
B No cracks at 7X magnification						
C If Class F-Resistance to flame propagation is required.						
D Within +/- 0.05 of qualified compound.						
E As specified by purchaser.						
F As specified by purchaser.						



Table 2 Requirements for Dense Elastomeric Silicone Rubber Gaskets and Accessories, Type C - Compression Set Resistant								
Property	Hardness							Test Method
	3	4	5	6	7	8	9	
Low temperature flexibility	A	A	A	A	A	A	A	D 2137
Hardness, Type A durometer, +/- 5 points	30	40	50	60	70	80	85	D 2240
Compression set, max %	15	15	15	15	15	20	25	D 395
Tensile strength, min, Mpa (psi)	5 (725)	5 (725)	5 (725)	5 (725)	5 (725)	5 (725)	5 (725)	D 412
Ultimate elongation, min %	350	300	250	200	125	100	60	D 412
Heat aging								D 573
Hardness change, max durometer points	+/- 5	+/- 5	+/- 5	+/- 5	+/- 5	+/- 5	+/- 5	
Tensile strength change, max %	+/- 15	+/- 15	+/- 15	+/- 15	+/- 15	+/- 15	+/- 15	
Ultimate elongation change, max %	+/- 30	+/- 30	+/- 30	+/- 30	+/- 30	+/- 30	+/- 30	
Ozone Resistance	B	B	B	B	B	B	B	D 1149 (Specimen A)
Tear strength, min, kN/m (ppl)	9 (51)	9 (51)	9 (51)	9 (51)	9 (51)	9 (51)	7 (40)	D 624
Flame propagation ^c , mm (in.)	100 (4)	100 (4)	100 (4)	100 (4)	100 (4)	100 (4)	100 (4)	C 1166
Specific gravity	D	D	D	D	D	D	D	D 792
Staining	E	E	E	E	E	E	E	D 925
Color	F	F	F	F	F	F	F	
A No failure.								
B No cracks at 7X magnification.								
C If Class F-Resistance to flame propagation is required.								
D Within +/- 0.05 of qualified compound.								
E As specified by purchaser.								
F As specified by purchaser.								

