

EMI Connector Gaskets

EMI FLANGE SEALS FOR ELECTRICAL CONNECTORS

U.S. Customary
[SI Metric]

GENERAL DESCRIPTION

A variety of TECKNIT EMI shielding materials can be manufactured into connector gaskets for military and commercial applications. These materials include TECKNIT CONSIL® materials, TECKFELT™, DUOLASTIC™, TECKSPAN™, and ELASTOMET®. Each TECKNIT material has its own advantages and characteristics. The gaskets can be manufactured to provide shielding only or a combination of shielding and environmental sealing. Tests have shown total shielding effectiveness of 100 dB or greater can be achieved with these TECKNIT materials.

STANDARD FOR DIMENSIONING CONNECTOR GASKETS

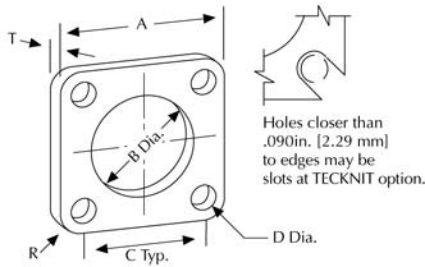
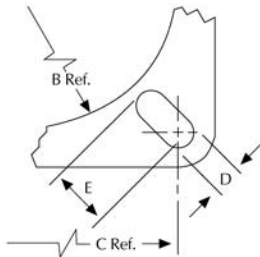


Figure 2. MIL-C-38999 Series III only.



ORDERING INFORMATION

To order TECKNIT connector gaskets, first select the Material Part Number Prefix. Second, locate the required gasket dimension from Table II or III and record the TECKNIT Order Number or Suffix. Third, combine the Material Prefix Number with the Order Number to obtain the complete TECKNIT Part Number which can be used to order gaskets. For assistance, or to determine the availability of connector gaskets not listed here, contact your nearest TECKNIT representative or factory location.

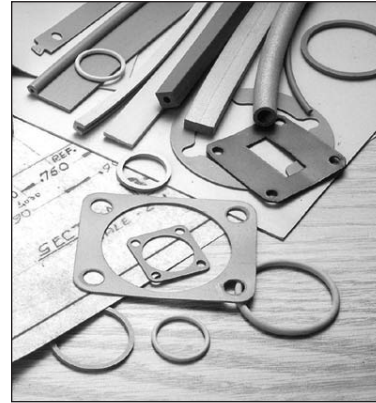


Figure 1.

SPECIFICATIONS

STANDARD MATERIALS* (part # prefix)	EMI SEAL	SEALING ELASTOMER	THK. (see Fig. 1) in. [mm]
DUOLASTIC			
(42-6xxxx)	Aluminum	Silicone	.020 [0.51]
(42-8xxxx)	Aluminum	Neoprene	.020 [0.51]
TECKFELT			
(45-6xxxx)	Stainless Steel	Silicone	.030 [0.76]
TECKSPAN			
(48-6xxxx)	Monel	Silicone	.030 [0.76]
(48-8xxxx)	Aluminum	Silicone	.030 [0.76]
ELASTOMET			
(82-6xxxx)	Monel	Silicone	.030 [0.76]
(82-7xxxx)	Phosphor, Bronze	Silicone	.030 [0.76]
(82-8xxxx)	Aluminum	Silicone	.030 [0.76]
CONSIL-II (842)			
(84-6xxxx)	Silver-plated inert particles	Silicone	.030 [0.76]
CONSIL-C (873)			
(87-7xxxx)	Silver-plated copper particles	Silicone	.030 [0.76]
CONSIL-C (875)			
(87-5xxxx)	Silver-plated copper particles	Fluoro-silicone	.030 [0.76]
CONSIL-A (895)			
(89-5xxxx)	Silver-plated aluminum particles	Silicone	.030 [0.76]
CONSIL-A (897)			
(89-7xxxx)	Silver-plated aluminum particles	Fluoro-silicone	.030 [0.76]

*For material specifications and thickness tolerances see applicable material data sheet.



STANDARD CONNECTOR GASKETS

Table 1.

FLANGE, CONNECTOR SHELL SIZE			GASKET DIMENSIONS					*TECKNIT ORDER NUMBER
AN,HT & QWL MIL-C-5015 MS-3100 MS-3102	JT,PT & PC MIL-C-26482 MS-3110 MS-3112 MS-3119 MS-3120	SP	A ± .015 [0.38]	B ± .015 [0.38]	C ± .015 [0.38]	D ± .015 [0.38]	R ± .015 [0.38]	
		#6	0.688 [17.48]	0.375 [9.53]	0.469 [11.91]	.156 [3.96]	.109 [2.77]	XX-X1650
		#8	0.812 [20.62]	0.500 [12.70]	0.594 [15.09]	.156 [3.96]	.109 [2.77]	XX-X1651
#8			0.875 [22.23]	0.500 [12.70]	0.594 [15.09]	.172 [4.37]	.125 [3.18]	XX-X1408
		#10	0.938 [23.83]	0.625 [15.88]	0.719 [18.26]	.156 [3.96]	.109 [2.77]	XX-X1652
	#6		0.953 [24.21]	0.375 [9.53]	0.641 [16.28]	.172 [4.37]	.156 [3.96]	XX-X1653
#10			1.000 [25.40]	0.625 [15.88]	0.719 [18.26]	.172 [4.37]	.125 [3.18]	XX-X1411
		#12	1.031 [26.19]	0.750 [19.05]	0.813 [20.65]	.156 [3.96]	.109 [2.77]	XX-X1654
	#8		1.047 [26.59]	0.500 [12.70]	0.734 [18.64]	.172 [4.37]	.156 [3.96]	XX-X1655
#12			1.094 [27.79]	0.750 [19.05]	0.813 [20.65]	.172 [4.37]	.125 [3.18]	XX-X1415
		#14	1.125 [28.58]	0.875 [22.23]	0.906 [23.01]	.156 [3.96]	.109 [2.77]	XX-X1656
	#10		1.125 [28.58]	0.687 [17.45]	0.812 [20.62]	.172 [4.37]	.063 X 45° [1.60 X 45°]	XX-X1418
#14			1.188 [30.18]	0.875 [22.23]	0.906 [23.01]	.172 [4.37]	.125 [3.18]	XX-X1423
		#16	1.219 [30.96]	1.000 [25.40]	0.969 [24.61]	.156 [3.96]	.125 [3.18]	XX-X1657
	#12		1.250 [31.75]	0.781 [19.84]	0.938 [23.83]	.172 [4.37]	.156 [3.96]	XX-X1658
#16			1.281 [32.54]	1.000 [25.40]	0.969 [24.61]	.172 [4.37]	.125 [3.18]	XX-X1434
		#18	1.312 [33.32]	1.125 [28.58]	1.063 [27.00]	.156 [3.96]	.125 [3.18]	XX-X1659
	#14		1.344 [34.14]	0.875 [22.23]	1.031 [26.19]	.172 [4.37]	.156 [3.96]	XX-X1660
#18			1.375 [34.93]	1.125 [28.58]	1.063 [27.00]	.203 [5.16]	.125 [3.18]	XX-X1439
		#20	1.469 [37.31]	1.281 [32.54]	1.156 [29.36]	.156 [3.96]	.125 [3.18]	XX-X1448
	#16		1.438 [36.53]	1.000 [25.40]	1.125 [28.58]	.172 [4.37]	.156 [3.96]	XX-X1661
#20			1.500 [38.10]	1.250 [31.75]	1.156 [29.36]	.203 [5.16]	.125 [3.18]	XX-X1455
		#18	1.516 [38.51]	1.125 [28.58]	1.203 [30.56]	.172 [4.37]	.156 [3.96]	XX-X1662
		#22	1.563 [39.70]	1.375 [34.93]	1.250 [31.75]	.130 [3.30]	.156 [3.96]	XX-X1461
#22			1.625 [41.28]	1.375 [34.93]	1.250 [31.75]	.203 [5.16]	.125 [3.18]	XX-X1465
	#20		1.672 [42.47]	1.250 [31.75]	1.297 [32.94]	.172 [4.37]	.187 [4.75]	XX-X1663
		#24	1.688 [42.88]	1.500 [38.10]	1.375 [34.93]	.156 [3.96]	.156 [3.96]	XX-X1664
#24			1.750 [44.45]	1.500 [38.10]	1.375 [34.93]	.203 [5.16]	.125 [3.18]	XX-X1480
	#22		1.750 [44.45]	1.375 [34.93]	1.375 [34.93]	.172 [4.37]	.187 [4.75]	XX-X1478
	#24		1.875 [47.63]	1.500 [38.10]	1.500 [38.10]	.172 [4.37]	.187 [4.75]	XX-X1665
#28			2.000 [50.80]	1.750 [44.45]	1.563 [39.70]	.203 [5.16]	.125 [3.18]	XX-X1491
#32			2.250 [57.15]	2.000 [50.80]	1.750 [44.45]	.219 [5.56]	-	XX-X1496
#36			2.500 [63.50]	2.188 [55.58]	1.938 [49.23]	.219 [5.56]	.125 [3.18]	XX-X1505
#40			2.750 [69.85]	2.438 [61.93]	2.188 [55.58]	.219 [5.56]	.125 [3.18]	XX-X1509
#44			3.000 [76.20]	2.781 [70.64]	2.375 [60.33]	.219 [5.56]	.125 [3.18]	XX-X1144
#48			3.250 [82.55]	3.031 [76.99]	2.625 [66.68]	.219 [5.56]	.109 [2.77]	XX-X1148
RF CONNECTORS								
	BN & BNC		0.687 [17.45]	0.437 [11.10]	0.500 [12.70]	.100 [2.54]	.093 [2.36]	XX-X1402
	C & N		1.000 [25.40]	0.625 [15.88]	0.719 [18.26]	.172 [4.37]	.125 [3.18]	XX-X1411
	HN		1.188 [30.18]	0.750 [19.05]	0.906 [23.01]	.156 [3.96]	.140 [3.56]	XX-X1422
	UHF		1.281 [32.54]	1.000 [25.40]	0.969 [24.61]	.172 [4.37]	.125 [3.18]	XX-X1434
	LC		2.000 [50.50]	1.250 [31.75]	1.437 [36.50]	.265 [6.73]	.281 [7.14]	XX-X1666

*To form, a complete TECKNIT part no., substitute the appropriate material prefix from the Specifications Table for the "XX-X" in the above TECKNIT order number.



EMI Connector Gaskets, continued

COMMONLY USED CONNECTOR SIZES AND PART NUMBERS

Table 1.

GASKET DIMENSIONS						GASKET DIMENSIONS					
A ±.015 0.38	B ±.015 0.38	C ±.015 0.38	D ±.015 0.38	R ±.015 0.38	*TECKNIT ORDER NUMBER	A ±.015 0.38	B ±.015 0.38	C ±.015 0.38	D ±.015 0.38	R ±.015 0.38	*TECKNIT ORDER NUMBER
.687 [17.45]	.348 [8.84]	.500 [12.70]	.100 [2.54]	.093 [2.36]	XX-X1400	1.500 [38.10]	1.219 [30.96]	1.156 [29.36]	.156 [3.96]	.171 [4.34]	XX-X1454
.687 [17.45]	.348 [8.84]	.500 [12.70]	.109 [2.77]	.093 [2.36]	XX-X1401	1.500 [38.10]	1.281 [32.54]	1.156 [29.36]	.120 [3.05]	.187 [4.75]	XX-X1120
.687 [17.45]	.437 [11.10]	.500 [12.70]	.109 [2.77]	-	XX-X1403	1.500 [38.10]	1.240 [31.50]	1.160 [29.46]	.156 [3.96]	.160 [4.06]	XX-X1456
.750 [19.05]	.375 [9.53]	-	-	.062 [1.57]	XX-X1404	1.500 [38.10]	1.344 [34.14]*	1.188 [30.18]	.171 [4.34]	.187 [4.75]	XX-X1457
.750 [19.05]	.500 [12.70]	-	-	-	XX-X1405	1.516 [38.51]	1.250 [31.75]	1.203 [30.56]	.156 [3.96]	.125 [3.18]	XX-X1458
.800 [20.32]	.440 [11.18]	.500 [12.70]	.120 [3.05]	.150 [3.81]	XX-X1406	1.516 [38.51]	1.125 [28.58]	-	-	-	XX-X1459
.812 [20.62]	.385 [9.53]	.500 [12.70]	.128 [3.25]	-	XX-X1407	1.531 [38.89]	1.156 [29.36]	1.203 [30.56]	.125 [3.18]	-	XX-X1460
.875 [22.23]	.531 [13.49]	.594 [15.09]	.120 [3.05]	.062 [1.57]	XX-X1409	1.594 [40.49]	1.312 [33.32]	1.250 [31.75]	.173 [4.39]	-	XX-X1462
.953 [24.21]	.609 [15.47]	.719 [18.26]	.120 [3.05]	.125X45° [3.18X45°]	XX-X1410	1.594 [40.49]	1.406 [35.71]	1.250 [31.75]	.141 [3.58]	.125 [3.18]	XX-X1463
1.000 [25.40]	.656 [16.66]	.719 [18.26]	.120 [3.05]	.125 [3.18]	XX-X1110	1.625 [41.28]	1.375 [34.93]	1.250 [31.75]	.171 [4.34]	.188 [4.78]	XX-X1464
1.000 [25.40]	.703 [17.86]	.719 [18.26]	.156 [3.96]	-	XX-X1412	1.625 [41.28]	1.406 [35.71]	1.250 [31.75]	.120 [3.05]	.125 [3.18]	XX-X1466
1.031 [26.19]	.719 [18.26]	.719 [18.26]	.130 [3.30]	.156 [3.96]	XX-X1413	1.625 [41.28]	1.437 [36.50]	1.250 [31.75]	.120 [3.05]	.187 [4.75]	XX-X1467
1.094 [27.79]	.750 [19.05]	.812 [20.62]	.150 [3.81]	.140 [3.56]	XX-X1414	1.640 [41.66]	1.250 [31.75]	-	-	.35 X 45° [8.89 X 45°]	XX-X1468
1.094 [27.79]	.781 [19.84]	.812 [20.62]	.120 [3.05]	.125 [3.18]	XX-X1416	1.672 [42.47]	1.375 [34.93]	1.297 [32.94]	.125 [3.18]	.125 [3.18]	XX-X1469
1.094 [27.79]	.875 [22.23]	.812 [20.62]	.143 [3.63]	-	XX-X1417	1.688 [42.88]	1.385 [35.18]	1.297 [32.94]	.150 [3.81]	-	XX-X1470
1.125 [28.58]	.750 [19.05]	.812 [20.62]	.156 [3.96]	.125 [3.18]	XX-X1419	1.688 [42.88]	1.375 [34.93]	1.297 [32.94]	.150 [3.81]	.181 [4.60]	XX-X1471
1.160 [29.46]	.925 [23.50]	.906 [23.01]	.125 [3.18]	-	XX-X1420	1.687 [42.85]	1.312 [33.32]	1.312 [33.32]	.156 [3.96]	.156 [3.96]	XX-X1472
1.188 [30.18]	.984 [25.00]	.812 [20.62]	.156 [3.96]	.125 [3.18]	XX-X1421	1.735 [44.09]	1.560 [39.62]	1.312 [33.32]	.125 [3.18]	.200 [5.59]	XX-X1473
1.188 [30.18]	.906 [23.01]	.906 [23.01]	.120 [3.05]	.140 [3.56]	XX-X1114	1.470 [44.20]	1.439 [36.55]	1.312 [33.32]	.136 [3.45]	-	XX-X1474
1.188 [30.18]	.938 [23.83]	.906 [23.01]	.120 [3.05]	.141 [3.58]	XX-X1424	1.750 [44.45]	1.281 [32.54]	1.297 [32.94]	.173 [4.39]	.226 [5.74]	XX-X1475
1.188 [30.18]	.950 [24.13]	.906 [23.01]	.120 [3.05]	.125 [3.18]	XX-X1425	1.750 [44.45]	1.562 [39.67]	1.312 [33.32]	.140 [3.56]	.125 [3.18]	XX-X1476
1.188 [30.18]	1.000 [25.40]	.969 [24.61]	.065 [1.65]	-	XX-X1426	1.750 [44.45]	1.500 [38.10]	1.312 [33.32]	.125 [3.18]	.156 [3.96]	XX-X1477
1.203 [30.58]	.875 [22.23]	.906 [23.01]	.125 [3.18]	.063X45° [1.60X45°]	XX-X1427	1.750 [44.45]	1.500 [38.10]	1.375 [34.92]	.125 [3.18]	.125 [3.18]	XX-X1479
1.250 [31.75]	.875 [22.23]	.938 [23.83]	.156 [3.96]	.125 [3.18]	XX-X1428	1.750 [44.45]	1.531 [38.89]	1.375 [34.92]	.147 [3.73]	.125 [3.18]	XX-X1124
1.265 [32.13]	.875 [22.23]	-	-	-	XX-X1429	1.750 [44.45]	1.500 [38.10]	1.375 [34.92]	.109 [2.77]	.188 [4.78]	XX-X1481
1.265 [32.13]	.937 [23.80]	.906 [23.01]	.140 [3.56]	-	XX-X1430	1.781 [45.24]	1.594 [40.49]	1.438 [36.53]	.136 [3.45]	.062 [1.57]	XX-X1482
1.266 [32.16]	.781 [19.84]	.938 [23.83]	.125 [3.18]	-	XX-X1431	1.800 [45.72]	1.440 [36.58]	1.380 [35.05]	.204 [5.18]	.093 [2.36]	XX-X1483
1.281 [32.54]	.875 [22.23]	.969 [24.61]	.150 [3.81]	.160 [4.06]	XX-X1432	1.812 [46.02]	1.560 [39.62]	1.312 [33.32]	.125 [3.18]	.250 [6.35]	XX-X1484
1.281 [32.54]	.875 [22.23]	.969 [24.61]	.146 [3.71]	.188 [4.78]	XX-X1433	1.812 [46.02]	1.375 [34.93]	-	-	-	XX-X1485
1.281 [32.54]	1.031 [26.19]	.969 [24.61]	.120 [3.05]	.125 [3.18]	XX-X1116	1.875 [47.63]	1.625 [41.28]	1.500 [38.10]	.156 [3.96]	.125 [3.18]	XX-X1486
1.281 [32.54]	1.063 [27.00]	.969 [24.61]	.120 [3.05]	.156 [3.96]	XX-X1435	1.875 [47.63]	1.531 [38.89]	1.375 [34.92]	.109 [2.77]	.250 [6.35]	XX-X1487
1.344 [34.14]	1.000 [25.40]	1.031 [26.19]	.156 [3.96]	.125 [3.18]	XX-X1436	1.950 [49.53]	1.500 [38.10]	-	-	-	XX-X1488
1.360 [34.54]	.870 [22.10]	1.030 [26.16]	.120 [3.05]	.120 [3.05]	XX-X1437	2.000 [50.80]	1.437 [36.50]	1.437 [36.50]	.257 [6.53]	.125 [3.18]	XX-X1489
1.375 [34.93]	1.000 [25.40]	1.063 [27.00]	.128 [3.25]	.156 [3.96]	XX-X1438	2.000 [50.80]	39.80 [1.567]	1.437 [38.50]	.257 [6.53]	.125 [3.18]	XX-X1490
1.375 [34.93]	1.156 [29.36]	1.063 [27.00]	.120 [3.05]	.188 [4.76]	XX-X1118	2.000 [50.80]	1.781 [45.24]	1.563 [39.70]	.147 [3.73]	.218 [5.54]	XX-X1128
1.375 [34.93]	1.188 [30.18]	1.063 [27.00]	.120 [3.05]	.156 [3.96]	XX-X1440	2.000 [50.80]	1.781 [45.24]	1.563 [39.70]	.188 [4.76]	.125 [3.18]	XX-X1492
1.375 [34.93]	1.000 [25.40]	1.062 [26.97]	.166 [4.22]	.166 [4.22]	XX-X1441	2.070 [52.58]	1.625 [41.28]	-	-	-	XX-X1493
1.375 [34.93]	1.000 [25.40]	-	-	-	XX-X1442	2.125 [53.98]	1.688 [42.88]	1.688 [42.88]	.195 [4.95]	.218 [5.54]	XX-X1494
1.406 [35.71]	1.000 [25.40]	1.000 [25.40]	.177 [4.50]	.201 [5.11]	XX-X1443	2.250 [57.15]	1.843 [46.81]	1.750 [44.45]	.219 [5.56]	-	XX-X1495
1.406 [35.71]	1.125 [28.58]	1.062 [26.97]	.149 [3.78]	.125 [3.18]	XX-X1444	2.250 [57.15]	2.000 [50.80]	1.750 [44.45]	.219 [5.56]	.125 [3.18]	XX-X1497
1.437 [36.49]	1.062 [26.97]	1.125 [28.58]	.156 [3.96]	.156 [3.96]	XX-X1445	2.250 [57.15]	2.031 [51.59]	1.750 [44.45]	.173 [4.39]	.125 [3.18]	XX-X1498
1.437 [36.49]	1.125 [28.58]	1.125 [28.58]	.156 [3.96]	.125 [3.18]	XX-X1446	2.250 [57.15]	2.031 [51.59]	1.750 [44.45]	.219 [5.56]	.125 [3.18]	XX-X1499
1.437 [36.49]	1.250 [31.75]	1.188 [30.18]	.125 [3.18]	.125 [3.18]	XX-X1447	2.281 [57.94]	2.015 [51.18]	1.688 [42.88]	.219 [5.56]	.125 [3.18]	XX-X1500
1.469 [36.49]	1.312 [33.32]	1.188 [30.18]	.125 [3.18]	.156 [3.96]	XX-X1449	2.375 [60.33]	2.032 [51.61]	1.688 [42.88]	.125 [3.18]	.250 [6.35]	XX-X1501
1.500 [38.10]	.875 [22.23]	1.062 [26.97]	.177 [4.50]	-	XX-X1450	2.500 [63.50]	1.250 [31.75]	1.750 [44.45]	.312 [7.92]	-	XX-X1502
1.500 [38.10]	1.000 [25.40]	1.125 [28.58]	.188 [4.78]	-	XX-X1451	2.500 [63.50]	1.625 [41.28]	1.750 [44.45]	.312 [7.92]	-	XX-X1503
1.500 [38.10]	1.031 [26.19]	1.125 [28.58]	.173 [4.39]	.188 [4.78]	XX-X1452	2.500 [63.50]	2.250 [57.15]	1.852 [47.04]	.177 [4.50]	.312 [7.92]	XX-X1504
1.500 [38.10]	1.140 [28.96]	1.156 [29.36]	.120 [3.05]	.171 [4.34]	XX-X1453	2.500 [63.50]	2.281 [57.94]	1.983 [49.23]	.173 [4.39]	.093 [2.36]	XX-X1136

U.S. Customary
[SI Metric]



COMMONLY USED CONNECTOR SIZES AND PART NUMBERS, CONT.

Table 2.

GASKET DIMENSIONS						GASKET DIMENSIONS					
A ±.015 0.38	B ±.015 0.38	C ±.015 0.38	D ±.015 0.38	R ±.015 0.38	*TECKNIT ORDER NUMBER	A ±.015 0.38	B ±.015 0.38	C ±.015 0.38	D ±.015 0.38	R ±.015 0.38	*TECKNIT ORDER NUMBER
2.500 [63.50]	2.281 [57.94]	1.983 [49.23]	.281 [7.14]	.093 [2.36]	XX-X1506	3.265 [82.93]	3.035 [77.09]	2.531 [64.29]	.296 [7.52]	.312 [7.92]	XX-X1515
2.625 [66.68]	2.188 [55.58]	2.093 [53.16]	.221 [5.61]	.266 [6.76]	XX-X1507	3.281 [83.34]	3.015 [76.58]	2.531 [64.29]	.281 [7.14]	.125 [3.18]	XX-X1516
2.690 [68.33]	2.250 [57.15]	2.250 [57.15]	.201 [5.11]	.125 X 45° [3.18 X 45°]	XX-X1508	3.375 [85.73]	2.138 [79.71]	2.475 [62.87]	.166 [4.22]	1.000 [25.40]	XX-X1517
2.750 [69.85]	2.531 [64.29]	2.188 [55.58]	.173 [4.39]	.125 [3.18]	XX-X1140	3.812 [96.82]	3.125 [79.38]	3.250 [82.55]	.312 [7.92]	-	XX-X1518
2.750 [69.85]	2.531 [64.29]	2.234 [56.74]	.173 [4.39]	.26 X 45° [6.60 X 45°]	XX-X1510	4.000 [101.60]	2.000 [50.80]	3.000 [72.20]	.281 [7.14]	-	XX-X1519
2.765 [70.23]	2.515 [63.88]	2.085 [52.96]	.236 [5.99]	.250 [6.60]	XX-X1511	4.000 [101.60]	2.938 [74.63]	3.375 [85.73]	.180 [4.57]	.312 [7.92]	XX-X1520
2.781 [70.64]	2.500 [63.50]	2.234 [56.74]	.166 [4.22]	FULL	XX-X1512	4.500 [114.30]	3.000 [76.20]	3.800 [96.52]	.250 [6.35]	.35 X 45° [8.89 X 45°]	XX-X1521
2.875 [73.03]	2.531 [64.29]	2.094 [53.19]	.138 [3.51]	.250 [6.60]	XX-X1513	4.500 [114.30]	4.000 [101.60]	3.875 [98.43]	.281 [7.14]	.312 [7.92]	XX-X1522
2.875 [73.03]	2.500 [63.50]	2.500 [63.50]	.154 [3.91]	.188 [4.78]	XX-X1514	4.625 [117.48]	3.888 [98.76]	-	-	-	XX-X1523

*To form a complete TECKNIT part no., substitute the appropriate material prefix from Specifications Table for the "XX-X" in the above TECKNIT order number.

STANDARD CONNECTOR GASKETS

Table 3.

CONNECTOR SHELL SIZE		GASKET DIMENSIONS						E**	TECKNIT* ORDER NUMBER
MIL-C-38999	A	B	C	D	R				
NUMBER	± .015 SERIES	+ .020 [0.38]	± .015 - .000 [+ 0.51, -000]	± .015 [0.38]	± .015 [0.38]	± .015 [0.38]	[0.38]		
8	II	.840 [21.34]	.630 [16.00]	.594 [15.09]	.135 [3.43]	.125 [3.18]		XX-X1616	
9	I	.965 [24.51]	.750 [19.05]	.719 [18.26]	.135 [3.43]	.125 [3.18]		XX-X1617	
9A	III	.965 [24.51]	.750 [19.05]	.719 [18.26]	.135 [3.43]	.125 [3.18]	.222[5.64]	XX-X1640	
10	II	.965 [24.51]	.750 [19.05]	.719 [18.26]	.135 [3.43]	.125 [3.18]		XX-X1617	
11	I & IV	1.060 [26.92]	.875 [22.23]	.812 [20.62]	.141 [3.58]	.125 [3.18]		XX-X1618	
11B	III	1.060 [26.92]	.875 [22.23]	.812 [20.62]	.141 [3.58]	.125 [3.18]	.206 [5.23]	XX-X1641	
12	II	1.060 [26.92]	.875 [22.23]	.812 [20.62]	.141 [3.58]	.125 [3.18]		XX-X1618	
13	I & IV	1.153 [29.29]	1.005 [25.53]	.906 [23.01]	.135 [3.43]	.125 [3.18]		XX-X1619	
13C	III	1.153 [29.29]	1.005 [25.53]	.906 [23.01]	.135 [3.43]	.125 [3.18]	.206 [5.23]	XX-X1642	
14	II	1.153 [29.29]	1.005 [25.53]	.906 [23.01]	.135 [3.43]	.125 [3.18]		XX-X1619	
15	I & IV	1.258 [31.95]	1.135 [28.83]	.969 [24.61]	.156 [3.96]	.141 [3.58]		XX-X1620	
15D	III	1.258 [31.95]	1.135 [28.83]	.969 [24.61]	.156 [3.96]	.141 [3.58]	.206 [5.23]	XX-X1643	
16	II	1.258 [31.95]	1.135 [28.83]	.969 [24.61]	.156 [3.96]	.141 [3.58]		XX-X1620	
17	I & IV	1.351 [34.32]	1.260 [32.00]	1.062 [26.97]	.156 [3.96]	.141 [3.58]		XX-X1621	
17E	III	1.351 [34.32]	1.260 [32.00]	1.062 [26.97]	.156 [3.96]	.141 [3.58]	.222 [5.64]	XX-X1644	
18	II	1.351 [34.32]	1.260 [32.00]	1.062 [26.97]	.156 [3.96]	.141 [3.58]		XX-X1621	
19	I & IV	1.500 [38.10]	1.375 [34.93]	1.156 [29.36]	.141 [3.58]	.172 [4.37]		XX-X1622	
19F	III	1.500 [38.10]	1.375 [34.93]	1.156 [29.36]	.141 [3.58]	.172 [4.37]	.206 [5.23]	XX-X1645	
20	II	1.500 [38.10]	1.375 [34.93]	1.156 [29.36]	.141 [3.58]	.172 [4.37]		XX-X1622	
21	I & IV	1.625 [41.28]	1.500 [38.10]	1.250 [31.75]	.141 [3.58]	.188 [4.78]		XX-X1623	
21G	III	1.625 [41.28]	1.500 [38.10]	1.250 [31.75]	.141 [3.58]	.188 [4.78]	.206 [5.23]	XX-X1646	
22	II	1.625 [41.28]	1.500 [38.10]	1.250 [31.75]	.141 [3.58]	.188 [4.78]		XX-X1623	
23	I & IV	1.750 [44.45]	1.625 [41.28]	1.375 [34.93]	.172 [4.37]	.188 [4.78]		XX-X1624	
23H	III	1.750 [44.45]	1.625 [41.28]	1.375 [34.93]	.172 [4.37]	.188 [4.78]	.259 [6.58]	XX-X1647	
24	II	1.750 [44.45]	1.625 [41.28]	1.375 [34.93]	.172 [4.37]	.188 [4.78]		XX-X1624	
25	I & IV	1.875 [47.63]	1.750 [44.45]	1.500 [38.10]	.172 [4.37]	.188 [4.78]		XX-X1625	
25J	III	1.875 [47.63]	1.750 [44.45]	1.500 [38.10]	.172 [4.37]	.188 [4.78]	.259 [6.58]	XX-X1648	

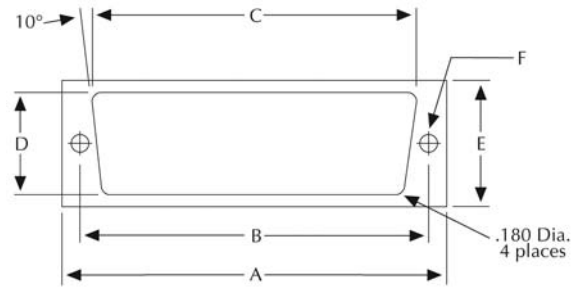
* To form a complete TECKNIT part no., substitute the appropriate material suffix from the SPECIFICATIONS TABLE for the "XX-X" in the TECKNIT order number.

**Required for Series III only. At TECKNIT's option dimension "E" may be slotted through to Hole "B" (see Figure 2).



EMI Connector Gaskets, continued

"D" SUBMINIATURE CONNECTOR GASKETS



U.S. Customary
[SI Metric]

GASKET DIMENSIONS

PART NUMBER	MOUNTING METHOD	NUMBER OF CONNECTOR PINS	A	B	C	D	E	F
			± .020	± .005	± .010	± .010	± .020	± .005
42-X1700	Front Mounting	9	1.313	.984	.782	.450	.750	.140
42-X1701	Rear Mounting		1.313	.984	.665	.370	.750	.140
42-X1702	Front Mounting	15	1.641	1.312	1.110	.450	.750	.140
42-X1703	Rear Mounting		1.641	1.312	.993	.370	.750	.140
42-X1704	Front Mounting	25	2.188	1.852	1.650	.450	.750	.140
42-X1705	Rear Mounting		2.188	1.852	1.533	.370	.750	.140
42-X1706	Front Mounting	37	2.829	2.500	2.298	.450	.750	.140
42-X1707	Rear Mounting		2.829	2.500	2.181	.370	.750	.140
42-X1708	Front Mounting	50	2.740	2.406	2.200	.562	.860	.140
42-X1709	Rear Mounting		2.740	2.406	2.087	.480	.860	.140

NOTE: "D" Subminiature Connector Gaskets can be fabricated from any of Tecknit's sheet stock materials. Contact your nearest Tecknit representative or factory location for part numbers and design assistance.





Conductive O-Seals

CONDUCTIVE ELASTOMER RING SEALS

U.S. Customary
[SI Metric]

GENERAL DESCRIPTION

O-SEALS are resilient O-rings of electrically conductive silicone elastomer. They can be manufactured from a variety of TECKNIT CONSIL® materials, and are available in round or rectangular cross-sections and provide high electrical conductivity, shielding effectiveness, and moisture or pressure sealing. They are designed for static applications in which the sealed surfaces do not move relative to each other.

APPLICATION INFORMATION

Typical applications for O-SEALS include connector, jam-nut and interfacial seals, waveguide flange seals, cap seals, and conductive moisture seals for sealing screws. Typical groove dimensions for round cross-section O-SEALS are listed in Table 1 below.

Table 1. Groove Dimensions for Round Cross-Section O-SEALS

O-SEAL Cross-Section Diameter	Groove Depth ±.003 in. [0.07 mm]	Groove Width ±.005 in. [0.12 mm]
.070 in. [1.78 mm]	.055 in. [1.40 mm]	.080 in. [2.03 mm]
.103 in. [2.62 mm]	.082 in. [2.06 mm]	.1127 in. [2.97 mm]



SPECIFICATIONS

STANDARD MATERIALS*	CONDUCTIVE FILLER	ELASTOMER	VOL. RES.(max.)
Consil-II 842	Silver plated inert particles	Silicone	.01 ohm-cm
Consil-C 871	Silver plated copper particles	Silicone	.004 ohm-cm
Consil-C 873	Silver plated copper particles	Silicone	.005 ohm-cm
Consil-A 895	Silver plated aluminum particles	Silicone	.008 ohm-cm

*For detailed material specifications see applicable data sheets.

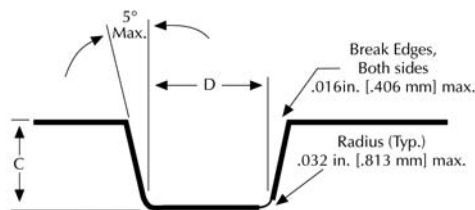


Figure 1. Groove Design

ORDERING INFORMATION

To order O-SEALS specify the TECKNIT Part Numbers shown in Tables II and III and the quantity required. For part not listed in Tables II and III, or for part numbers of other CONSIL materials, contact your nearest TECKNIT area representative or factory location to determine availability of the required tooling.



INTERFACIAL SEALS

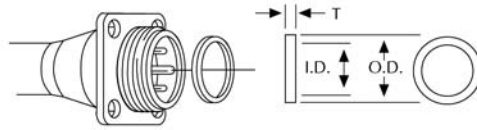


Table 2.

CONNECTOR SHELL		DIMENSIONS					
MIL-C-26482	MIL-C-5015	I.D. ± .010 in. [0.25mm]	O.D. ± .010 [0.25 mm]	T ± .005 in. [0.13]	Consil II 842	Consil-C 871	Consil-A 895
#8		.319 [8.10]	.422 [10.72]	.075 [1.91]	84-30220	87-30220	89-50220
	#8	.328 [8.33]	.391 [9.93]	.030 [0.76]	84-30221	87-30221	89-50221
#10		.447 [11.35]	.550 [13.97]	.075 [1.91]	84-30222	87-30222	89-50222
	#10	.406 [10.31]	.469 [11.91]	.030 [0.76]	84-30223	87-30223	89-50223
#12		.547 [13.89]	.703 [17.86]	.075 [1.91]	84-30224	87-30224	89-50224
	#12	.531 [13.49]	.594 [15.09]	.030 [0.76]	84-30225	87-30225	89-50225
#14		.671 [17.04]	.828 [21.03]	.075 [1.91]	84-30226	87-30226	89-50226
	#14	.641 [16.28]	.700 [17.78]	.030 [0.76]	84-30227	87-30227	89-50227
#16		.797 [20.24]	.953 [24.21]	.075 [1.91]	84-30228	87-30228	89-50228
	#16	.781 [19.84]	.844 [21.44]	.030 [0.76]	84-30229	87-30229	89-50229
#18		.891 [22.63]	1.047 [26.59]	.075 [1.91]	84-30230	87-30230	89-50230
	#18	.891 [22.63]	.953 [24.21]	.030 [0.76]	84-30231	87-30231	89-50231
#20		1.039 [26.39]	1.172 [29.77]	.075 [1.91]	84-30232	87-30232	89-50232
	#20	.984 [24.99]	1.047 [26.59]	.030 [0.76]	84-30233	87-30233	89-50233
#22		1.141 [28.98]	1.297 [32.94]	.075 [1.91]	84-30234	87-30234	89-50234
	#22	1.109 [28.17]	1.172 [29.77]	.030 [0.76]	84-30235	87-30235	89-50235
#24		1.266 [32.16]	1.322 [36.12]	.075 [1.91]	84-30236	87-30236	89-50236
	#24	1.219 [30.96]	1.281 [32.54]	.030 [0.76]	84-30237	87-30237	89-50237
	#28	1.455 [36.96]	1.547 [39.29]	.040 [1.02]	84-30238	87-30238	89-50238
	#32	1.672 [42.47]	1.766 [44.86]	.040 [1.02]	84-30239	87-30239	89-50239
	#36	1.891 [48.03]	1.984 [50.39]	.040 [1.02]	84-30240	87-30240	89-50240

JAM NUT AND O-RING SEAL

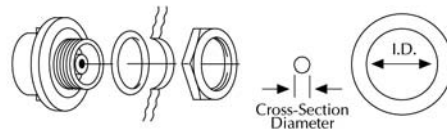


Table 3.

CONNECTOR SHELL		REFERENCE	DIMENSIONS				
MIL-C-26482	MIL-C-81511	Substitute for MS-29513 Size Reference Dash Number	I.D. ± 0.010 in. [0.25 mm]	Section Dia. ± .005 in. [0.13 mm]	Consil-II 842	Consil-C 871	Consil-A 895
		-11	.301 [7.65]	.070 [1.78]	84-30200	87-30200	89-50200
		-13	.426 [10.82]	.070 [1.78]	84-30201	87-30201	89-50201
		-14	.489 [12.42]	.070 [1.78]	84-30202	87-30202	89-50202
#6		-15	.551 [14.00]	.070 [1.78]	84-30203	87-30203	89-50203
#8		-17	.676 [17.17]	.070 [1.78]	84-30204	87-30204	89-50204
	#8	-18	.739 [18.77]	.070 [1.78]	84-30205	87-30205	89-50205
#9, 10		-19	.801 [20.35]	.070 [1.78]	84-30206	87-30206	89-50206
	#10	-20	.864 [21.95]	.070 [1.78]	84-30207	87-30207	89-50207
#11, 12		-22	.989 [25.12]	.070 [1.78]	84-30208	87-30208	89-50208
#13, 14	#14	-24	1.114 [28.30]	.070 [1.78]	84-30209	87-30209	89-50209
#15, 16	#16	-26	1.239 [31.47]	.070 [1.78]	84-30210	87-30210	89-50210
#17, 18	#18	-28	1.364 [34.65]	.070 [1.78]	84-30211	87-30211	89-50211
#19, 20			1.487 [37.77]	.103 [2.62]	84-30212	87-30212	89-50212
#21, 22			1.612 [40.94]	.103 [2.62]	84-30213	87-30213	89-50213
#23, 24			1.737 [44.12]	.103 [2.62]	84-30214	87-30214	89-50214
#25			1.862 [47.30]	.103 [2.62]	84-30215	87-30215	89-50215



Waveguide Gaskets

CONDUCTIVE SILICONE ELASTOMER GASKETS

U.S. Customary
[SI Metric]

GENERAL DESCRIPTION

TECKNIT® WAVEGUIDE GASKETS are made from a silicone elastomer filled with silver-plated particles designed to achieve maximum electrical conductivity. Gaskets for choke or grooved contact flanges are molded from TECKNIT CONSIL®- C (Compound 873) elastomer in solid round or solid “D” shaped cross sections. Flat contact flange gaskets are die cut from .027 in. [0.69 mm] thick TECKNIT CONSIL-C (Compound 877) elastomer. CONSIL-C (Compound 877) contains an expanded copper metal reinforcement to eliminate cold flow. All gaskets are reusable and have no metal surfaces to mar flanges.

APPLICATION INFORMATION

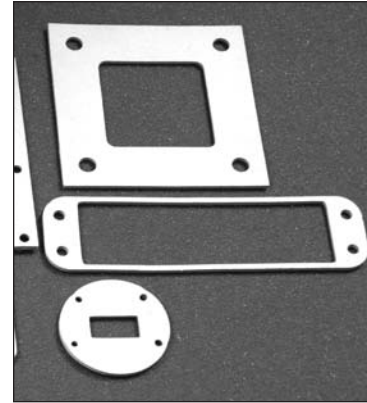
TECKNIT WAVEGUIDE GASKETS offer the circuit designer a wide variety of RF and pressure tight seals for any waveguide system. They can be used for EMP and TEMPEST applications, and are widely used by the military and aerospace communities in sophisticated electronic countermeasure, communication, and guidance systems. Recommended design compression is 7 to 10% of thickness for rectangular cross sections, 18 to 20% of diameter for round cross sections and 12 to 15% of height for “D” shaped cross sections. All at 50 to 200 PSI closure force.

EMI SHIELDING PERFORMANCE*

TECKNIT CONSIL-C Shielding Effectiveness has been tested in accordance with TECKNIT test method TSETS-01 and based upon MODIFIED MIL-STD- 285. Typical values are given below.

MATERIALS	H-FIELD	E-FIELD	PLANE WAVE	
	100 kHz	10 MHz	1 GHz	10 GHz
	dB	dB	dB	dB
873	75	130+	115	110
877	75	130+	115	110

(*Based on 127 mm x 127 mm Aperture)



SPECIFICATIONS

MATERIAL DESCRIPTION

Consil-C Compound No.	873	877
Elastomer	Silicone	Silicone
Filler	Silver Plated Copper Particles	Silver Plated Copper Particles & Expanded Copper Reinforcement
Color	Gray	Red
Texture	Smooth	Smooth

PERFORMANCE CHARACTERISTICS

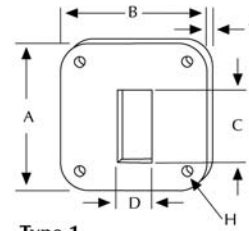
Hardness Shore A	85	80
Durometer, ASTM D-2240	±7	±7
Volume Res. (max.) QA-1039	.005 ohm-cm	.007 ohm-cm
Specific Gravity ASTM D-792	3.5 ±13%	4.75 ±.75
Tensile Strength (Min.) ASTM D-412	400 psi	600 psi [4.05 MPa]
Tear Strength (Min.) ASTM D-624	40 ppi [7 kN/m]	70 ppi [12.25 kN/m]
Elongation to (Min/Max) ASTM D-412	100%/300%	NA ⁽¹⁾
Temperature Range	-49°F to 257°F [-45°C to 125°C]	-49°F to 257°F [-45°C to 125°C]
Form Available:	Molded & Extruded	Die Cut

⁽¹⁾ NA = Not Applicable

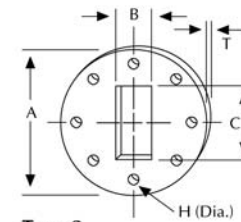


TECKNIT WAVEGUIDE GASKET SELECTION CHART

Wave-guide Size	Band	Frequency Range GHz	Flange Description	Flange Type	Gasket Type ⁽¹⁾	Gasket Material	Part Number
WR28	K _a	26.5	UG-599/U	Cover	1	877	87-87000
WR42	K	18.0	UG-595/U UG-597/U	Cover	1	877	87-87001
WR62	K _u	12.4	UG-419/U	Cover	1	877	87-87002
WR90	X	8.2 12.4	UG-39/U	Cover	1	877	87-87003
			UG-135U	Flat	1	877	87-87004
			UG-1736/U UG-1737/U	Contact	1	877	87-87004
WR112	X ₁	7.05 10.00	UG-51/U	Cover	1	877	87-87005
			UG-138/U	Flat	1	877	87-87006
			UG-1734/U UG-1735/U	Contact	1	877	87-87006
WR137	X _b	5.85 8.20	UG-344/U	Cover	2	877	87-87007
			UG-441/U	Flat	1	877	87-87008
			UG-1732/U UG-1733/U	Contact	1	877	87-87008
WR159		4.90 7.05	UG-1730/U	Flat			
			UG-1731/U	Contact	1	877	87-87009
WR187	C	3.95 5.85	UG-149A/U	Cover	2	877	87-87010
			UG-407/U	Flat	1	877	87-87011
			UG-1728/U UG-1729/U	Contact	1	877	87-87011
WR284		2.60 3.95	UG-53U	Cover	2	877	87-87012
			UG-584/U	Flat	1	877	87-87013
			UG-1724/U UG-1725/U	Contact	1	877	87-87013



Type 1



Type 2

GASKET TYPE

- 1 Die Cut Rectangular
- 2 Die Cut Circular

TECKNIT

Waveguide Gaskets, continued

U.S. Customary
[SI Metric]

TYPE 1 GASKET DIMENSIONS

Table 3.

A ± .015 [0.38]	B ± .015 [0.38] -0	C +.015 [0.38] -0	D +.015 [0.38]	H ±.010 [0.25]	T ±.005 [0.13]	PART NUMBER
.750 [19.05]	.750 [19.05]	.145 [3.68]	.285 [7.24]	.116 [2.95]	.027 [0.69]	87-87000
.875 [22.23]	.875 [22.23]	.175 [4.45]	.425 [10.80]	.116 [2.95]	.027 [0.69]	87-87001
1.313 [33.35]	1.313 [33.35]	.630 [16.00]	.320 [8.13]	.140 [3.56]	.027 [0.69]	87-87002
1.625 [41.28]	1.625 [41.28]	.905 [22.99]	.405 [10.29]	.169 [4.29]	.027 [0.69]	87-87003
1.594 [40.49]	2.094 [53.19]	.405 [10.29]	.905 [22.99]	.169 [4.29]	.027 [0.69]	87-87004
1.875 [47.63]	1.875 [47.63]	1.130 [28.70]	.505 [12.83]	.180 [4.57]	.027 [0.69]	87-87005
1.750 [44.45]	2.500 [63.50]	.505 [12.83]	1.130 [28.70]	.171 [4.34]	.027 [0.69]	87-87006
1.937 [49.20]	2.687 [68.25]	.633 [16.08]	1.380 [35.05]	.206 [5.23]	.027 [0.69]	87-87008
2.438 [61.93]	3.188 [80.98]	.805 [20.45]	1.600 [40.64]	.257 [6.53]	.027 [0.69]	87-87009
3.500 [88.90]	2.500 [63.50]	1.880 [47.75]	.880 [22.35]	.266 [6.76]	.027 [0.69]	87-87011
4.500 [114.30]	3.000 [76.20]	2.850 [72.39]	1.350 [34.29]	.266 [6.76]	.027 [0.69]	87-87013

TYPE 2 GASKET DIMENSIONS

Table 4.

A ±.015 [0.38]	B +.015 [0.38] -0	C +.015 [0.38] -0	H ±.010 [0.38]	T ±.005 [0.13]	PART NUMBER
3.125 [79.38]	.632 [16.05]	1.382 [35.10]	.234 [5.94]	.027 [0.69]	87-87007
3.625 [92.08]	.882 [22.40]	1.882 [47.80]	.234 [5.94]	.027 [0.69]	87-87010
5.312 [134.93]	1.350 [34.29]	2.850 [72.39]	2.90 [7.37]	.027 [0.69]	87-87012

