

Section I: Beryllium Copper Gaskets

*U.S. Customary
[SI Metric]*



PRODUCT

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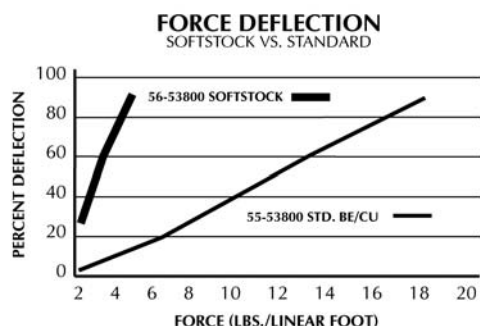
Beryllium Copper

EMI SHIELDING FINGERSTOCK GASKETS

U.S. Customary
[SI Metric]

GENERAL DESCRIPTION

Technit Beryllium Copper EMI Shielding Fingerstock Gaskets are durable metal strips used as gasket material to provide high shielding effectiveness in closure applications where low closure forces are required. Where extremely low closure force is required, Softstock gaskets are available in all standard cross sections. The following graph compares the force / deflection of Softstock to standard Beryllium Copper gasketing.



Both Softstock and standard Beryllium Copper gaskets are ideal for applications where closure force is applied parallel to the mating surface and the gasket is "wiped" rather than perpendicularly compressed. Beryllium copper gaskets retain a high resistance to relaxation - virtually eliminating compression set.

Note: For detailed technical data, please contact our Customer Service Department at (908) 272-5500 for information on the following:

- Force/deflection on specific part numbers
- Shielding effectiveness on specific part numbers
- Physical properties of Beryllium Copper Alloy
- Pressure sensitive adhesive tape specifications
- Product tolerances and detailed drawings
- Plating specifications

Technit offers a wide choice of Beryllium Copper gaskets specially designed for both large and small enclosures. They can be installed by a variety of methods, including adhesive strips, clip-on, and rivet mount designs.



APPLICATION INFORMATION

Technit Beryllium Copper EMI Shielding Gaskets can be used in a broad range of electronic equipment where EMI/RFI or ESD problems exist. Beryllium Copper Gaskets perform flawlessly in a variety of environments. They can be plated with a large choice of metal finishes to ensure their compatibility with any mating surface. They will not burn nor are they affected by radiation, or ultraviolet. For these reasons, top designers use Beryllium Copper EMI Shielding in everything from computers and radios to military guidance systems and consumer electronics.

SPECIFICATIONS

MATERIAL DESCRIPTION

- **Metal:** Beryllium Copper Alloy C17200 (ASTM B194)
- **Heat Treated:** 353-435 DPH/Vickers

PERFORMANCE CHARACTERISTICS

TYPICAL SHIELDING EFFECTIVENESS

25% deflection in accordance with MIL-STD-285 test procedure.

	H-FIELD	E-FIELD	PLANE WAVE
Standard Finger Stock	100 kHz 110 dB	10 MHz 100 dB	1 GHz 90 dB
Softstock	95dB	85dB	75dB

PRODUCT DESCRIPTIONS

OPEN END - Low compression force strips with adhesive backing. All-purpose contact strip offers superior performance under minimum compression. Ideally suited for applications requiring a range of compression due to variations in mounting surface.

Product Number	A	B Ref.	C	D	E	F	Approx. Length
5X-50000	.580[14.73]	.235[5.96]	.770[19.55]	.060[1.52]	.375[9.52]	.032[0.81]	24"
5X-52000	.380[9.65]	.150[3.81]	.500[12.7]	.060[1.52]	.250[6.35]	.022[0.55]	16"
5X-54000	.280[7.11]	.120[3.04]	.370[9.39]	.040[1.01]	.188[4.77]	.018[0.45]	16"
5X-53800	.780[19.81]	.270[6.85]	.940[23.87]	.060[1.52]	.375[9.52]	.040[1.01]	24"

Contact Tecknit for availability of 25ft. coils

FOLD-OVER - Same characteristics as the open end series. However, this design incorporates a "fold over" design which encaptures each finger protecting them from damage.

Product Number	A	B Ref.	C	D	E	F	Approx. Length
5X-51500	.580[14.73]	.223[5.84]	.760[19.30]	.060[1.52]	.375[9.52]	.032[0.81]	24"
5X-52100	.400[10.16]	.150[3.81]	.510[12.95]	.060[1.52]	.250[6.35]	.022[0.55]	16"
5X-54100	.280[7.11]	.120[3.04]	.380[9.65]	.050[1.27]	.188[4.77]	.018[0.45]	16"
5X-54200	.173[4.39]	.080[2.32]	.250[6.35]	.050[1.27]	.187[4.76]	.018[0.45]	16"

Contact Tecknit for availability of 25ft. coils

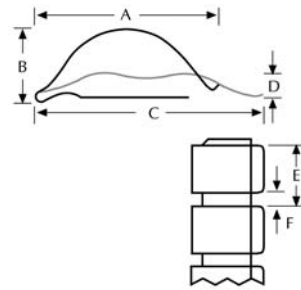
RIGHT ANGLE - For applications where a minimal amount of material thickness is desired. This series provides optimum shielding with minimal closure force.

Product Number	A	B Ref.	C	D	E	F	G Ref.	Approx. Length
5X-50400	.580[14.73]	.735[18.66]	.770[19.55]	.060[1.52]	.375[9.52]	.032[.812]	.50[12.7]	24"
5X-52400	.380[9.65]	.450[11.43]	.500[12.7]	.060[1.52]	.250[6.35]	.022[.558]	.30[7.62]	16"
5X-54400	.280[7.11]	.354[8.99]	.370[9.39]	.040[1.01]	.188[4.77]	.018[.457]	.23[5.84]	16"
5X-53400	.780[19.81]	.810[20.57]	.940[23.87]	.060[1.52]	.375[9.52]	.040[1.016]	.54[13.71]	24"

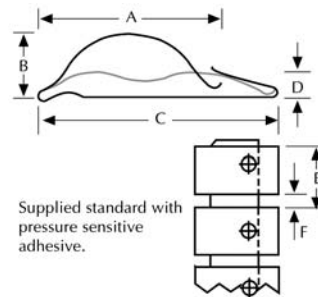
LARGE ENCLOSURE - A design uniquely suited to applications such as shielded room doors or large electronic enclosures. May be used in wiping or compression applications.

Product Number	A	B Ref.	C	D	E	F	Approx. Length
5X-63900	1.500[38.1]	.225[5.71]	1.760[44.70]	.060[1.524]	.375[9.52]	.040[1.016]	24"
5X-63800	1.090[27.68]	.225[5.71]	1.350[34.29]	.060[1.524]	.375[9.52]	.040[1.016]	24"

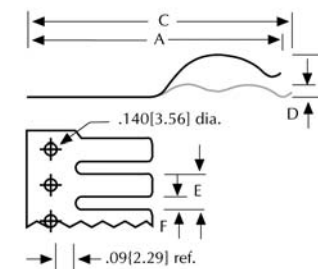
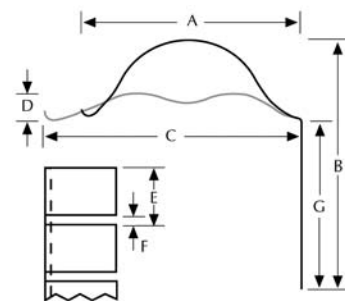
Contact Tecknit for availability of 25ft. coils.



Supplied standard with pressure sensitive adhesive.



Supplied standard with pressure sensitive adhesive.



TECKNIT

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TWIST - Designed for compression applications with minimum flange widths. Available in single sided and double sided versions.

Product Number	A	B	C	D	Approx. Length
5X-45000	.230[5.84]	.030[0.762]	.095[2.41]	.015[0.381]	24"
5X-45500	.340[8.64]	.070[1.77]	.165[4.19]	.015[0.381]	24"
5X-46000	.500[12.7]	.070[1.77]	.165[4.19]	.015[0.381]	24"

Contact Tecknit for availability of 25ft. coils

RIGHT ANGLE TWIST - For compression applications where side mounting is desired.

Product Number	A	B	C	D	E	F	Approx. Length
5X-65100	.080[2.03]	.190[4.82]	.095[2.41]	.015[0.381]	.160[4.064]	.03[.762]	24"
5X-65500	.160[4.06]	.260[6.60]	.165[4.19]	.015[0.381]	.190[4.830]	.07[1.778]	24"

CLIP-ON - For applications where adhesive mounting is not possible.

Product Number	A	B	C	D	E	Approx. Length
*5X-61000	.300[7.62]	.092[2.33]	.078[1.98]	.188[4.77]	.047[1.19]	16"
*5X-62000	.440[11.17]	.078[1.98]	.078[1.98]	.188[4.77]	.047[1.19]	16"
*5X-63000	.600[15.24]	.205[5.20]	.078[1.98]	.188[4.77]	.047[1.19]	16"
*5X-64000	1.090[27.68]	.255[6.47]	.081[2.05]	.375[9.52]	.040[1.016]	16"

MODIFIED CLIP-ON - For applications where adhesive mounting is not possible and where space limitations exist.

Product Number	A	B	C	D	E	Approx. Length
5X-66600	.600[15.23]	.165[4.14]	.097[2.46]	.188[4.77]	.047[1.19]	16"
5X-66700	.272[6.90]	.200[5.08]	.070[1.78]	.190[4.82]	.030[.762]	18"

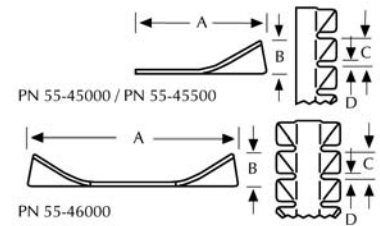
CLIP-ON TWIST - For compression applications where non-adhesive mounting is desired.

Product Number	A	B	C	D	Approx. Length
5X-65200	.150[3.81]	.100[2.54]	.095[2.41]	.015[0.381]	24"
*5X-66500	.270[6.85]	.110[2.79]	.165[4.19]	.015[0.381]	24"

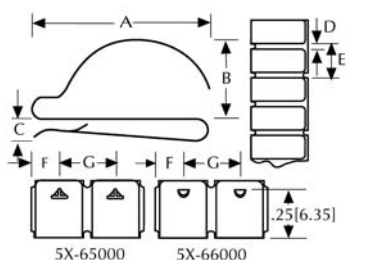
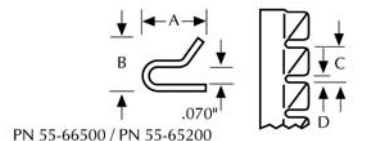
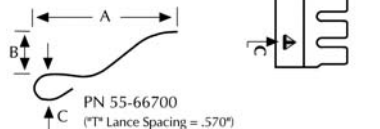
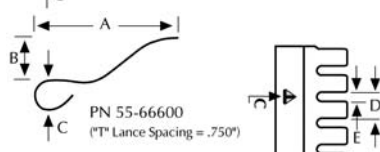
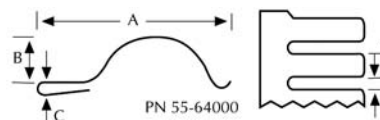
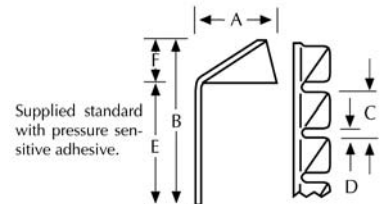
REVERSE CLIP-ON - For applications where closure force is applied from the same side as the flange form.

Product Number	A	B	C	D	E	F	G	Approx. Length	Lance
5X-65000	.380 [9.65]	.200 [5.08]	.070 [1.77]	.040 [1.016]	.250 [6.35]	.250 [6.35]	.500 [12.70]	16"	T
5x-66000	.380 [9.65]	.200 [5.08]	.070 [1.77]	.040 [1.016]	.250 [6.35]	.250 [6.35]	.500 [12.70]	16"	D

* "D" and "T" Lances available in 1/2" and 1" spacing. Contact the factory.
NOTE: Clip dimension alternatives available. Contact TECKNIT factory.



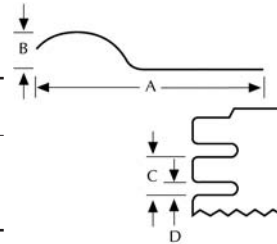
PN 55-45000 / PN 55-45500
PN 55-46000
Supplied standard with pressure sensitive adhesive.



CONTACT STRIPS - For a variety of design applications. Contact strips offer near continuous contact from each finger.

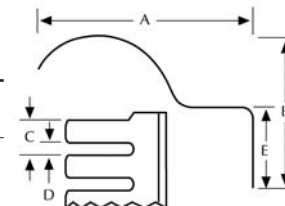
Product Number	A	B	C	D	Approx. Length
5X-60900	.520[13.20]	.100[2.54]	.188[4.77]	.047[1.19]	16"
5X-61900	.670[17.01]	.080[2.03]	.188[4.77]	.047[1.19]	16"
5X-62900	.860[21.84]	.205[5.20]	.188[4.77]	.047[1.19]	16"

Contact Tecknit for availability of 25ft. coils.



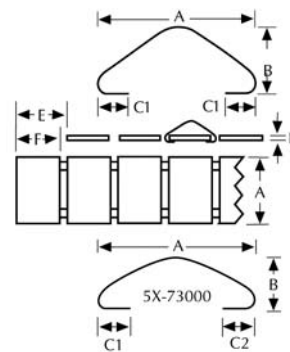
RIGHT ANGLE CONTACT STRIP - Same performance characteristics of the contact strip, but designed for side mounting applications.

Product Number	A	B	C	D	E	Approx. Length
5X-61500	.300[7.62]	.357[9.06]	.188[4.77]	.047[1.19]	.257[6.52]	16"
5X-62500	.440[11.17]	.360[9.14]	.188[4.77]	.047[1.19]	.280[7.112]	16"
5X-63500	.600[15.24]	.500[12.11]	.188[4.77]	.047[1.19]	.290[7.36]	16"
5X-64500	1.090[27.68]	.650[14.09]	.375[9.52]	.040[1.016]	.395[10.03]	16"



SYMMETRICAL SLOT MOUNT SERIES - Fingers are designed to snap into parallel slots and can be compressed to stock thickness.

Product Number	A	B Min.	C1	C2	D Ref.	E	F	Ref. Length
5X-71000	.320[8.13]	.110[2.79]	.085[2.16]	-	.040[1.01]	.187[4.74]	.169[4.29]	16"
5X-71100	.320[8.13]	.110[2.79]	.085[2.16]	-	.040[1.01]	.187[4.74]	.169[4.29]	.187" (1 finger)
5X-71200	.320[8.13]	.110[2.79]	.085[2.16]	-	.040[1.01]	.187[4.74]	.169[4.29]	.375" (2 finger)
5X-71300	.320[8.13]	.110[2.79]	.085[2.16]	-	.040[1.01]	.187[4.74]	.169[4.29]	.563" (3 finger)
5X-72000	.600[15.23]	.220[5.58]	.140[3.56]	-	.070[1.77]	.282[7.16]	.25[6.35]	15.75"
5X-72100	.600[15.23]	.220[5.58]	.140[3.56]	-	.070[1.77]	.282[7.16]	.250[6.35]	.282" (1 finger)
5X-72200	.600[15.23]	.220[5.58]	.140[3.56]	-	.070[1.77]	.282[7.16]	.250[6.35]	.563" (2 finger)
5X-72300	.600[15.23]	.220[5.58]	.140[3.56]	-	.070[1.77]	.282[7.16]	.250[6.35]	.845" (3 finger)
55-73000	.358[9.09]	.128[3.25]	.110[2.79]	.098[2.29]	.050[1.27]	.202[5.13]	.184[5.67]	.389" (2 fingers)



SUGGESTED SLOT DIMENSIONS			
Product #	W1	W2	W3
5X-71XXX	.090[2.29]	.090[2.29]	.260[6.60]
5X-72XXX	.145[4.12]	.145[4.12]	.520[13.21]
55-73XXX	.105[2.66]	.115[2.92]	.300[7.62]

(Modification may be needed for certain applications)

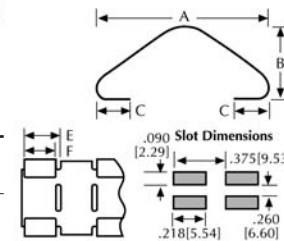
(Length of slots will vary with the number of fingers)



SYMMETRICAL STAGGERED SLOT MOUNT - Designed to ease longer strip mount installations.

Product Number	A	B Min.	C	D	E	F	Length
56-74016	.320[8.13]	.110[2.79]	.085[2.16]	.040[1.02]	.187[4.75]	.169[4.29]	.92" (5 fingers)
56-74000	.320[8.13]	.110[2.79]	.085[2.16]	.040[1.02]	.187[4.75]	.169[4.29]	16.3"
56-75016	.560[14.22]	.240[6.09]	.128[3.25]	.040[1.02]	.281[7.15]	.250[6.35]	4.187[106.3] (15 fingers)

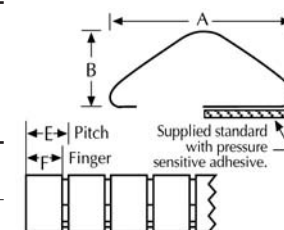
*Available in soft stock only.



SOFT FINGERS - Superior elastic performance in applications where extremely low closure forces are required. Softstock version only.

Product Number	A	B Min.	C	D	E	F	Max. Length	Thickness
56-70000	.370[9.398]	.13[3.30]	-	-	.250[6.35]	.225[5.71]	16"	.0020[.0508]

*Available in soft stock only.



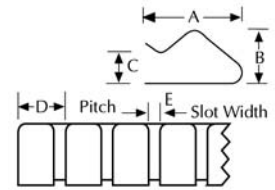
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SOFT MINI CLIP-ON - Designed for use on connectors and other small applications. Softstock version only.

Product Number	A	B Min.	C	D	E	Length	Thickness
56-68000*	.025[0.64]	.042[1.07]	.025[0.64]	.049[1.25]	.020[0.51]	.784[19.92] ± .020[.50]	.002 [.0508]

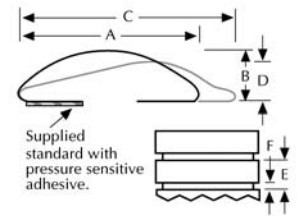
*Available in Softstock only.



SYMMETRICAL - A symmetrical strip suited for use applications with bi-directional closure force designs.

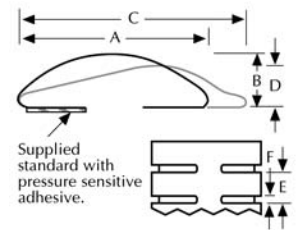
Product Number	A	B Min.	C	D	E	F	Approx. Length
5X-55700	.350[8.89]	.110[2.79]	.380[9.65]	.070[1.77]	.187[4.74]	.018[0.45]	15"
5X-3000	.450[11.43]	.080[2.03]	.510[12.95]	.040[1.016]	.125[3.175]	.05[.635]	24"
5X-55400	.450[11.43]	.140[3.55]	.510[12.95]	.080[2.03]	.250[6.35]	.022[0.55]	15"

*Available in Softstock only.



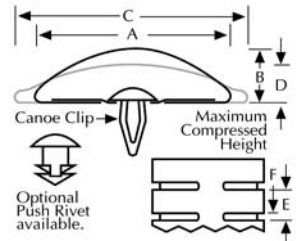
SYMMETRICAL WITH SPINE - All the advantages of standard symmetrical with the added feature of a spine running lengthwise to allow for parallel sliding. Symmetrical strips are suited for use with bi-directional closure force designs.

Product Number	A	B Min.	C	D	E	F	Approx. Length
5X-55300	.350[8.89]	.110[2.79]	.380[9.65]	.070[1.77]	.187[4.74]	.018[0.45]	15"



SYMMETRICAL WITH RIVET MOUNT - For bi-directional closure force designs that require the highest reliability mounting methods.

Product Number	A	B Min.	C	D	E	F	G	H	Approx. Length	Rivet Type
5X-55800	.350[8.89]	.110[2.79]	.380[9.65]	.070[1.77]	.187[4.74]	.018[0.45]	.66	.84	15"	Clip
5X-55500	.450[11.43]	.140[3.55]	.510[12.95]	.080[2.03]	.250[6.35]	.022[0.55]	.63	.88	15"	Clip
5X-55900	.350[8.89]	.110[2.79]	.380[9.65]	.070[1.77]	.187[4.74]	.018[0.45]	.66	.84	15"	Push
5X-55600	.450[11.43]	.140[3.55]	.510[12.95]	.080[2.03]	.250[6.35]	.022[0.55]	.63	.88	15"	Push



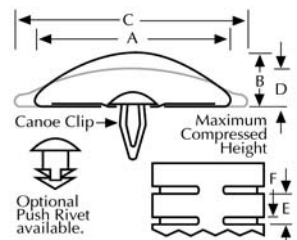
RIVET LOCATION INFORMATION

Canoe Clip and Push Rivet are designed to fit .125[3.18] hole.



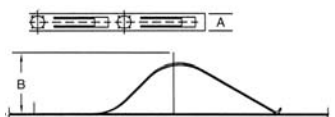
SYMMETRICAL RIVET MOUNT WITH SPINE - Standard symmetrical advantages with added feature of a spine running lengthwise to allow parallel sliding.

Product Number	A	B Min.	C	D	E	F	G	H	Approx. Length	Rivet Type
5X-55100	.350[8.89]	.110[2.79]	.380[9.65]	.070[1.77]	.187[4.74]	.018[0.45]	.66	.84	15"	Clip
5X-55200	.350[8.89]	.110[2.79]	.380[9.65]	.070[1.77]	.187[4.74]	.018[0.45]	.66	.84	15"	Push

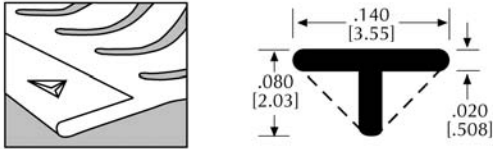


LONGITUDINAL GROUNDING STRIP - Designed for sliding contact applications, such as rack-mounted equipment equipment and sliding drawer or cover applications.

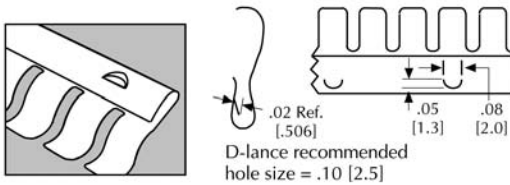
Product Number	A	B Min.	C	D Length	E	Approx.
55-00101	.250[6.35]	.177[4.49]	—	.070[1.77]	.102[2.59]	6.38"



T-LANCE - Clip-on Gaskets with the "T" lance assure extra grip and electrical conductivity. "T" lance is the perfect solution for mounting gaskets on aluminum and other softer metals. All "T" lance gaskets are available in standard finishes.



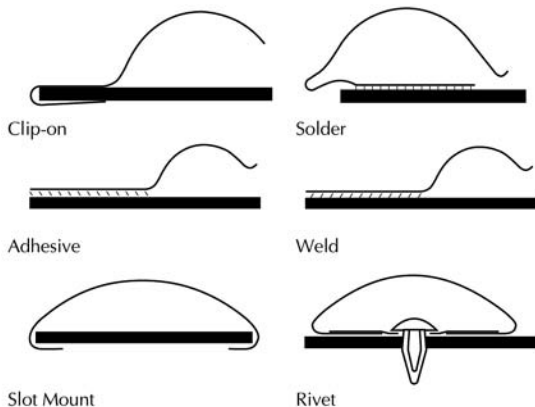
D-LANCE - "D" lances snap into mounting surface holes for enhanced gripping power and conductivity.



Standard lance locations are on .50" centers. Other locations are available. Please contact factory.

MOUNTING METHODS

TECKNIT supplies gaskets adaptable to six attachment methods: clip-on, pressure sensitive adhesive, solder, weld, slot, and rivet mounting. Please note that the clip dimensions depicted in this catalog can be modified to accommodate a variety of mounting surface material thicknesses. In addition, various rivet styles are available for the symmetrical rivet series.



ORDERING INFORMATION

When ordering standard Beryllium Copper Gaskets replace the second digit of the part number (X) with a 5. To order the low compression Softstock version, change the "X" to a 6.

Example: 5X - 71000 = 55 - 71000 (Standard)
56 - 71000 (Softstock)

T-LANCE AND D-LANCE - Items requiring a "T" or "D" lance, add a "T" or "D" on the end of the part number. Also add the spacing dimension: .500" or 1.000"

Example: 55-63000T500
"T" lance with .500" spacing

Example: 55-62000D100
"D" lance with 1.000" spacing

COILS - When ordering Be/Cu coils, simply add the code letter "C" to the part number.

Example: 55-51500C

When ordering Beryllium Copper Gaskets with plating, refer to the Tecknit Plating Code Chart below. Simply substitute the last two digits of the part number with the appropriate code number of the plating to specified.

Example: 55 - 520 00 = 55-520 06 (Satin Tin Finish)

PLATING CODE CHART

Standard plating thickness: 0001" min. (Gold is: 00005" min.)

Finish	Identification	Finish	Identification
Bright Finish	00	Electroless Nickel	09
Gold	01	Bright Nickel	10
Silver	02	Tin/Nickel	11
Tin Lead	05	Zinc	12
Satin Tin	06	Zinc Chromate	
Bright Tin	07	(Yellow)	13
Dull Nickel	08	Zinc Chromate	
		(Clear)	40

PLATING FOR GALVANIC COMPATABILITY

Often plating is advisable to prevent inter action with Beryllium Copper and the metal it contacts. The figure below shows groups of compatible metals. Each group of metals overlap with those next in the group. It is safe to use metals from adjacent groups. For example, Beryllium Copper is found in Group III, making it safe to use with metals and platings from groups II, III or IV.

TECKNIT

Beryllium Copper, continued

U.S. Customary
[SI Metric]

GROUPING OF METALS BY ELECTROCHEMICAL COMPATIBILITY

ANODE			
Group I	Group II	Group III	Group IV
Magnesium	Aluminum	Cadmium Plating	Brass
Magnesium Alloys	Aluminum Alloys	Carbon Steel	Stainless Steel
Aluminum	Zinc & Zinc Plating	Iron	Beryllium Copper
Aluminum Alloys	Chromium Plating	Nickel & Nickel Plating	Copper / Copper Alloys
Zinc / Zinc Plating	Cadmium Plating	Tin & Tin Plating	Nickel / Copper Alloys
Chromium Plating	Carbon Steel	Tin / Lead Solder	Monel
	Iron	Lead	Silver
	Nickel & Nickel Plating	Brass	Graphite
	Tin & Tin Plating	Stainless Steel	Rhodium
	Tin / Lead Solder	Beryllium Copper	Titanium
		Copper / Copper Alloys	Platinum
		Nickel / Copper Alloys	Gold
CATHODE			

