FORM U-5018-A MAR 96

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COMPANY STANDARD

CONTRACT NO.
GENERAL USAGE

DRAWN BY ALBERT J. EMERY			DATE 96-08-29	MFG P.E.B.
CHECKER C. MILLER			WTS -	PROD OPS J.G.T.
CMPNT -	MATL P.S.	STRESS -	QUAL A.T.D	RELBL -
GROUP ENGR G. LOVASZ			THRM	PROD SPRT -
PROJECT			SYS	OCALA
PROGRAM APPROVAL -			SAFETY M.M.	ENVIRON L.D.
CUSTOMER -				

LOCKHEED MARTIN CORPORATION
5600 SAND LAKE ROAD, ORLANDO, FLORIDA 32819-8907

WIRE AND CABLE, ELECTRICAL, ENHANCED FLEXIBILITY

SIZE	CAGE CODE	DWG NO.
A	04939	79M000042

SCALE		SHEET
NONE		1 OF 20

1. SCOPE

1.1 Scope. This specification establishes the requirements for extruded, modified, crosslinked, flexible ethylene-tetrafluoroethylene (ETFE) insulated wire and cable, with a maximum voltage rating of 600 volts at sea level and 77 degrees Fahrenheit (F), and a service temperature range of -85 to 302 degrees F.

1.2 Classification.

1.2.1 Type designation. The type designation shall be of the following form, as specified in the following example:

22	**A**	**2**	**T**	**J**
Basic wire size, AWG	Type of conductor	Number of conductors	Shielding	Jacketing
(1.2.1.1)	(1.2.1.2)	(1.2.1.3)	(1.2.1.4)	(1.2.1.5)

Thus, 22A2TJ represents a 22 AWG cable with 2 tin-coated copper conductors, and a shield and jacket.

1.2.1.1 Wire or cable size. The wire or cable shall be of the following American Gage sizes (AWG), as specified: 16, 18, 20, 22, 24, 26, or 28.

1.2.1.2 Conductor type. The conductor shall be of the following types, as specified:

A - Tin-coated copper (22 through 16 AWG only)
B - Silver-coated high strength copper alloy (28 through 24 AWG only)

1.2.1.3 Number of conductors. The number of conductors shall be of the following quantities, as specified: 1, 2, 3, or 4.

1.2.1.4 Shielding. The shielding shall be of the following designations, as specified:

U - Unshielded
T - Tin-coated copper shielded
S - Silver-coated copper shielded

1.2.1.5 Jacketing. The jacket shall be of the following letter designations, as specified:

0 - Unjacketed
J - Jacketed

2. APPLICABLE DOCUMENTS

2.1 Government documents. The following documents, of the issue in effect on the date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

SPECIFICATIONS

Military

MIL-W-22759	Wire, Electric, Fluoropolymer-Insulated, Copper or Copper Alloy

STANDARDS

Federal

FED-STD-228	Cable and Wire, Insulated; Methods of Testing

Military

MIL-STD-104	Limits for Electrical Insulation Color
MIL-STD-202	Test Methods for Electronic and Electrical Component Parts

(Copies of specifications, standards, drawings, and publications required by suppliers in connection with specified procurement functions should be obtained from the contracting agency or as directed by the contracting officer).

2.2 Non-Government documents. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on the date of invitation for bids or request for proposal shall apply.

STANDARDS

American Society for Testing and Materials

ASTM B3	Soft or Annealed Copper Wire
ASTM B33	Tinned Soft or Annealed Copper Wire for Electrical Purposes
ASTM B298	Silver-Coated Soft or Annealed Copper Wire
ASTM B624	High-Strength, High-Conductivity, Copper Alloy Wire for Electronic Application
ASTM D747	Apparent Bending Modulus of Plastics by Means of a Cantilever Beam
ASTM D882	Test Method for Tensile Properties of Thin Plastic Sheeting.

(Copies of ASTM publications may be obtained from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428.)

National Electrical Manufacturer's Association (NEMA)

NEMA WC 27500	Standard for Aerospace and Industrial Electrical Cable

(Copies of NEMA publications may be obtained from the National Electrical Manufacturer's Association, 1300 North 17th Street, Suite 1847, Rosslyn, VA 22209.)

(Technical Society and technical association specifications and standards are generally available for reference from libraries. They are also distributed among technical groups and using Federal agencies.)

3. REQUIREMENTS

3.1 General material requirements. The requirements for the individual wires and cables furnished under this specification shall be as specified herein.

3.1.1 Conductor.

3.1.1.1 Conductor material. All strands used in the manufacture of the conductors shall be soft annealed copper conforming to ASTM B3, or shall be high

strength copper alloy conforming to ASTM B624. Strands shall be free from lumps, kinks, splits, scrapes, or corroded surfaces and skin impurities.

3.1.1.2 Conductor coating. The tin coating shall be as specified in ASTM B33. The silver-coated high strength copper alloy shall have a coating thickness of not less than 40 microinches of silver when tested in accordance with ASTM B298.

3.1.1.3 Conductor construction. The construction of the conductor shall meet the requirements specified in Table I.

TABLE I - CONDUCTOR CONSTRUCTION DETAILS

Size (AWG)	Stranding 1/	Circular Mils 2/	Maximum Diameter (Inch)	Maximum Resistance (Ohms/1000 feet)
28	42/44	168	0.019	84.5
26	63/44	252	0.023	55.9
24	105/44	420	0.027	36.5
22	154/44	616	0.033	18.8
20	154/42	963	0.043	11.7
18	259/42	1619	0.053	7.2
16	259/40	2489	0.067	4.6

NOTE: 1/ The minimum allowable number of strands may be 98 percent of the number specified in Table I as long as the dimensional and resistance requirements are met.

2/ Circular mil data is for engineering information only.

TABLE II - BEND TEST MANDREL FOR CABLES (POST-ENVIRONMENTAL)

Finished Cable Diameter (Inch)	Mandrel Diameter (Inch)
Up to 0.083	0.750
0.084 to 0.111	1.00
0.112 to 0.139	1.25
0.140 to 0.194	1.75
0.195 to 0.250	2.25
0.251 to 0.334	3.00

3.1.2 Primary insulation.

3.1.2.1 Primary insulation material. Each conductor shall be insulated with extruded, radiation crosslinked, modified, flexible ethylene-tetrafluorethylene (ETFE). The minimum tensile strength and elongation shall be 3500 pounds per square inch (psi) and 75 percent, respectively, for 24 through 16 AWG, and shall be 3000 psi and 75 percent, respectively, for 26 and 28 AWG.

3.1.2.2 Primary insulation construction. The minimum thickness of the primary insulation shall be 0.004 inch.

3.1.2.3 Primary insulation color. The insulation color of finished wire shall be in accordance with MIL-STD-104, Class I, and shall always be white unless otherwise specified on the purchase order or contract. The insulation of wire used in a cable shall be white with one colored spiral stripe in accordance with the requirements of NEMA WC 27500.

3.1.3 Shield.

3.1.3.1 Shield material. Shielding strands shall conform to the same requirements as the conductor materials (see 3.1.1.1) and shall be 38 AWG.

3.1.3.2 Shield construction. The shielding shall be a braided construction applied in such a manner as to provide coverage of not less than 85 percent.

3.1.4 Jacket.

3.1.4.1 Jacket material. The jacket material shall be extruded, radiation crosslinked, modified flexible ETFE. The minimum tensile strength and elongation shall be 3000 psi and 100 percent, respectively. The jacket color shall be white.

3.1.4.2 Jacket construction. The minimum jacket thickness shall be 0.004 inch. Jacket material shall be easily removable from the finished cable without adherence to the underlying shield or conductors.

3.1.5 Cable layup. The required number of wires for multiconductor construction determined by the cable designation shall be cabled with a left-hand lay. The lay of the individual wires shall be 10 to 16 times the outside diameter of the unshielded, unjacketed cable. The basic wire shall not be spliced. Fillers and binder tapes shall not be used.

3.1.6 Construction. All dimensions shall meet the requirements specified in Table I and Table III.

3.1.7 Continuous lengths. Minimum continuous length shall be 50 feet for single and multiconductor cables and 100 feet for single conductor primaries. There shall be a maximum of five lengths per spool. All ends, when more than one length is shipped on the same reel or spool, shall be exposed for testing.

TABLE III - WIRE AND CABLE CONSTRUCTIONS

79M000042 Type Designation	Overall Diameter (Maximum) (Inch) 1/	Maximum Weight (Pounds/1000 feet) 2/
28B1UO	0.032	1.0
26B1UO	0.036	1.4
24B1UO	0.040	2.1
22A1UO	0.046	2.9
20A1UO	0.057	4.2
18A1UO	0.068	6.7
16A1UO	0.083	10.2
28B2UO	0.064	2.1
26B2UO	0.072	2.9
24B2UO	0.080	4.3
22A2UO	0.092	5.9
20A2UO	0.114	8.6
18A2UO	0.136	13.7
16A2UO	0.166	20.8
28B3UO	0.069	3.1
26B3UO	0.078	4.3
24B3UO	0.086	6.4
22A3UO	0.099	8.9
20A3UO	0.123	12.9
18A3UO	0.147	20.5
16A3UO	0.179	31.2
28B4UO	0.088	4.1
26B4UO	0.099	5.7
24B4UO	0.111	8.6
22A4UO	0.127	11.8
20A4UO	0.157	17.1
18A4UO	0.187	27.3
16A4UO	0.228	41.6

TABLE III - WIRE AND CABLE CONSTRUCTIONS (CONTINUED)

79M000042 Type Designation	Overall Diameter (Maximum) (Inch) 1/	Maximum Weight (Pounds/1000 feet)2/
28B1TJ	0.065	4.0
26B1TJ	0.069	4.7
24B1TJ	0.075	5.8
22A1TJ	0.079	6.9
20A1TJ	0.091	8.9
18A1TJ	0.102	12.5
16A1TJ	0.118	17.1
28B2TJ	0.097	6.9
26B2TJ	0.106	8.5
24B2TJ	0.114	10.5
22A2TJ	0.129	13.3
20A2TJ	0.152	17.8
18A2TJ	0.177	25.1
16A2TJ	0.211	35.2
28B3TJ	0.101	8.5
26B3TJ	0.112	10.6
24B3TJ	0.121	13.4
22A3TJ	0.134	16.8
20A3TJ	0.159	22.8
18A3TJ	0.186	32.8
16A3TJ	0.224	47.3
28B4TJ	0.118	10.1
26B4TJ	0.132	12.8
24B4TJ	0.144	16.4
22A4TJ	0.163	21.1
20A4TJ	0.194	28.8
18A4TJ	0.228	41.8
16A4TJ	0.273	59.8

TABLE III - WIRE AND CABLE CONSTRUCTIONS (CONTINUED)

79M000042 Type Designation	Overall Diameter (Maximum) (Inch) 1/	Maximum Weight (Pounds/1000 feet)2/
28B1SJ	0.065	4.0
26B1SJ	0.069	4.7
24B1SJ	0.075	5.8
22A1SJ	0.079	6.9
20A1SJ	0.091	8.9
18A1SJ	0.102	12.5
16A1SJ	0.118	17.1
28B2SJ	0.097	6.9
26B2SJ	0.106	8.5
24B2SJ	0.114	10.5
22A2SJ	0.129	13.3
20A2SJ	0.152	17.8
18A2SJ	0.177	25.1
16A2SJ	0.211	35.2
28B3SJ	0.101	8.5
26B3SJ	0.112	10.6
24B3SJ	0.121	13.4
22A3SJ	0.134	16.8
20A3SJ	0.159	22.8
18A3SJ	0.186	32.8
16A3SJ	0.224	47.3
28B4SJ	0.118	10.1
26B4SJ	0.132	12.8
24B4SJ	0.144	16.4
22A4SJ	0.163	21.1
20A4SJ	0.194	28.8
18A4SJ	0.228	41.8
16A4SJ	0.273	59.8

NOTES (Table III):

1/ As measured on the major axis.

2/ Weights listed are for engineering information only.

3.2 Chemical electrical, and mechanical properties.

3.2.1 Conductor resistance. The resistance of the primary wire shall not exceed the requirements specified in Table I.

3.2.2 Conductor and shield soldering. The conductor and shield shall meet solderability requirements when tested in accordance with 4.4.4.2.

3.2.3 Conductor and shield continuity. All of the conductors and shields in wire or cable shall withstand the continuity test specified in 4.4.4.3 without indication of discontinuity.

3.2.4 Dielectric withstand. One hundred percent of the finished cable shall pass the dielectric withstand test specified in 4.4.4.4 without evidence of electrical breakdown or arcing.

3.2.5 Insulation and jacket flaws. One hundred percent of the finished wire shall pass an impulse dielectric test of 6.0 kV (peak). As an alternative to the impulse dielectric test, a high frequency spark test may be performed using a voltage of 3.0 kV at 3 kHz. One hundred percent of the finished, shielded and jacketed cable shall pass a spark test of 1.0 kV (RMS) when tested in accordance with section 4.4.4.5.

3.2.6 Insulation resistance (DC). The primary wire shall have a minimum insulation resistance of 500 megohms for 1000 feet.

3.2.7 Concentricity. The concentricity requirement shall be 70 percent for both the primary insulation and the finished cable when tested in accordance with 4.4.4.7.

3.2.8 Secant Modulus. When specimens of the crosslinked modified, flexible, ETFE insulation and cable jacket are tested in accordance with 4.4.4.10, the secant modulus shall not exceed 50,000 lbf/in^2 for primary wire insulation, and 40,000 lbf/in^2 for cable jacket.

3.3 Environmental conditions.

3.3.1 Crosslinking proof. The finished wire or jacketed cable shall pass the crosslinking proof test specified in 4.4.5.1 without evidence of cracking or dielectric breakdown, when tested at a temperature of 572 plus or minus 5 degrees F for 6 hours, except constructions with silver conductors or shields shall be tested for 1 hour.

3.3.2 Cold bend. The finished wire or jacketed cable shall pass the cold bend test specified in 4.4.5.2 without evidence of cracking or dielectric breakdown, when tested at a temperature of -85 plus or minus 5 degrees F for 4 hours.

3.3.3 Flammability. The finished wire or cable shall not burn more than 3 seconds, nor burn more than 3 inches, when tested in accordance with 4.4.5.3.

3.3.4 Life cycle. The finished wire shall pass the life cycle test of 4.4.5.4 without evidence of physical or electrical damage to the wire.

3.3.5 Blocking. Adjacent turns or layers of wire or cable shall not stick together to the metal mandrel when subjected to the blocking test specified in 4.4.5.5 at a temperature of 302 plus or minus 5 degrees F for 6 hours.

3.4 Toxic products and safety. This paragraph is not applicable to this specification.

3.5 Identification of product. Unless otherwise specified on the purchase order or contract, wire (26 AWG or larger) or cable jackets shall be identified by a marking to the outer surface. Wire and cable shall be marked in accordance with NEMA WC 27500 except this specification number, type designation, and the supplier's commercial and government entity number (CAGE No) shall be imprinted on the outer insulation.

3.5.1 Identification and marking. Each reel of material shall be marked in a permanent and legible manner with the following information, as a minimum:

a. This specification number and revision level
b. Item classification under this specification
c. Supplier item identification
d. Supplier name, address, and CAGE No
e. Lot or batch number (6.3.1 and 6.3.2)
f. Date of manufacture
g. Total footage and number of lengths.

3.6 Workmanship. The product supplied to this specification shall be in accordance with good design and sound practice, and shall exhibit uniform quality throughout. The wire or cable shall be free of lumps, bubbles, kinks, abraded surfaces, dirt, grease, and other defects that would be harmful for the intended use.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection and test requirements as specified herein. Except as otherwise specified, the supplier may utilize his own facilities or any commercial laboratory acceptable to the procuring activity. The procuring activity reserves the right to perform any of the inspections or tests set forth in the specification where such inspections or tests are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Inspection records. Inspection records of examinations and tests shall be kept complete and available to the procuring activity. These records shall contain all the data necessary to determine compliance with the requirements of this specification. Nondeliverable data that represents objective evidence of process formulation or control and production conformity shall be retained for seven (7) years.

4.2 Qualification tests. Qualification tests are all tests for all requirements specified herein. Unless otherwise specified, primary tests are performed prior to cabling. Qualification tests must be performed on the material for determination of approval as a source of supply. The supplier is responsible for insuring that all material delivered is capable of meeting the requirements of such tests.

4.3 Quality conformance tests. Each lot (see 6.3.1) shall be tested as follows to verify conformance to this specification. Certification by a qualified laboratory or by the material supplier, based upon test data on record that the material passes the required tests, shall be sufficient evidence of acceptability. Unless otherwise specified, primary wire tests are performed prior to cabling.

Property	Requirements	Test Method
Construction	3.1.6	4.4.3
Insulation tensile stg. & elong.	3.1.2.1	4.4.4.8
Jacket tensile stg. and elong.	3.1.4.1	4.4.4.8
Conductor resistance	3.2.1	4.4.4.1
Conductor and shield soldering (Tin/Cu only)	3.2.2	4.4.4.2
Continuity	3.2.3	4.4.4.3
Dielectric withstand	3.2.4	4.4.4.4
Insulation and Jacket flaws	3.2.5	4.4.4.5
Concentricity	3.2.7	4.4.4.7
Secant modulus	3.2.8	4.4.4.10
Crosslinking proof	3.3.1	4.4.5.1
Identification and marking	3.5	4.4.2
Workmanship	3.6	4.4.2

4.3.1 Rejection. Failure to meet any requirement of this specification shall be cause for rejection of the entire lot (6.3.1).

4.4 Test methods.

4.4.1 Inspection and test conditions. Unless otherwise specified within the approved test method, all inspections and tests shall be conducted at a temperature of 77 plus or minus 16 degrees F and a relative humidity of 50 plus or minus 20 percent.

4.4.2 Visual inspection. Unless otherwise specified, visual inspection shall be utilized to verify requirements. All visual inspections shall be conducted with the unaided eye, except for normal corrected vision.

4.4.3 Dimensions. Conductor diameters, shield strand diameters and overall wire and cable outside diameters shall be determined by direct micrometer measurement or an equivalent method. Insulation and jacket thickness shall be measured in accordance with the concentricity method of 4.4.4.7.

4.4.4 Specific test methods.

4.4.4.1 Conductor resistance. The conductor resistance shall be tested in accordance with FED-STD-228, Method 6021 corrected to 68 degrees F with the exception that the wire shall be tested dry without immersion.

4.4.4.2 Conductor and shield soldering. The conductors and shields shall meet the solderability test of MIL-STD-202, Method 208, less steam aging. Conductor AWG sizes 22 and larger may be tested using Type RMA flux. Shields shall be evaluated in the same manner as AWG 16 and larger.

4.4.4.3 Conductor and shield continuity. All of the conductors and shield shall be tested for continuity with an ohmmeter or equivalent testing device.

4.4.4.4 Dielectric withstand. The finished cable shall be tested for dielectric withstand in accordance with FED-STD-228, Method 6111, except that immersion is not required, using a test voltage of 1500 volts AC and a 60 Hz frequency with a voltage application time of 15 to 30 seconds. Each insulated conductor, in turn, shall be tested against all others tied together after final spooling.

4.4.4.5 Insulation and Jacket flaws. The finished wire and cable shall be tested for insulation and jacket flaws in accordance with MIL-W-22759 and NEMA WC 27500, as applicable.

4.4.4.6 Insulation resistance. The electrical resistance of the insulation shall be determined in accordance with MIL-W-22759.

4.4.4.7 Concentricity. The concentricity of the wire or cable shall be determined in accordance with MIL-W-22759 or NEMA WC 27500, as applicable.

4.4.4.8 Insulation and jacket tensile strength and elongation. The tensile strength and ultimate elongation of the insulation or jacket shall be determined in accordance with FED-STD-228, Methods 3021 or 3031, utilizing one inch bench marks, one inch jaw separation, and a jaw speed of two inches per minute.

4.4.4.9 Shield coverage. The percent coverage of the braided shield shall be determined in accordance with NEMA WC 27500.

4.4.4.10 Secant Modulus. The secant modulus of the insulation or jacket shall be determined in accordance with ASTM D882 using 2% strain, 2-inch initial jaw separation, and a jaw speed of 0.2 inch per minute.

4.4.5 Environmental tests.

4.4.5.1 Crosslinking proof. The finished wire shall be tested in accordance with MIL-W-22759/32. The finished jacketed cable shall be tested in accordance with NEMA WC 27500, except use a 15 inch specimen with sufficient weight to keep the cable straight.

4.4.5.2 Cold bend. The finished wire shall be cold bend tested in accordance with MIL-W-22759/32. The finished jacketed cable shall be tested in accordance with NEMA WC 27500.

4.4.5.3 Flammability. The finished wire shall be tested for flammability in accordance with MIL-W-22759/32. The finished cable shall be tested in accordance with NEMA WC 27500.

4.4.5.4 Life cycle. The finished wire shall be life cycle tested in accordance with MIL-W-22759/32, except the test time shall be 168 hours.

4.4.5.5 Blocking. The finished wire shall be tested for blocking in accordance with MIL-W-22759/32. The finished cable shall be tested in accordance with NEMA WC 27500.

5. PREPARATION FOR DELIVERY

5.1 Packaging. The material is typically supplied in spools or rolls of various lengths.

5.2 Preservation and packing. Unless otherwise specified in the purchase order or contract, preservation and packing shall be in accordance with best commercial practice.

5.3 Marking of shipments. Each shipping container shall be marked in a permanent and legible manner, and shall include the following information, as a minimum:

a. This specification number and revision level
b. Item classification under this specification
c. Supplier name, address, CAGE No., and item identification.
d. Date of shipment
e. Total footage
f. Purchase order number.

6. NOTES

6.1 Intended use. The material covered by this specification is intended for use where a highly flexible wire or cable is needed for general purpose hookup wire and cable applications in military and aerospace systems.

6.2 Ordering data. Procurement documents shall specify the following information, as a minimum.

a. This specification number and revision level
b. Item classification under this specification
c. Supplier name, address, and CAGE No.
d. Total footage required.

6.2.1 Suggested Source of Supply.

Supplier name and address	Supplier item ID
TYCO Electronics/Raychem 300 Constitution Drive Menlo Park, CA 94025 CAGE No 06090	See Table IV

6.3 Definitions.

6.3.1 Lot. A lot shall consist of all material delivered for acceptance at one time that has been fabricated from one or more batches of raw material.

6.3.2 Batch. A batch shall be defined as that quantity of material that has been subjected to unit chemical processing or physical mixing or both, at the same time, designed to produce a product with uniform characteristics.

6.3.3 Wire. A wire shall be defined as a single insulated conductor.

6.3.4 Cable. A cable shall be defined as any construction other than finished wire, utilizing a wire or wires with or without shielding, with or without an overall outer jacket.

6.4 Stiffness test method. When a comparison of flex and standard conductors is required for engineering evaluation, wire and cable stiffness shall be measured using the cantilever beam apparatus described in ASTM D747 and the following procedure. The test apparatus shall be set up with a calibrated weight and specified span of wire and cable. The calibrated weight used defines the maximum moment capability of the apparatus, spindle plus added weights. As the specimen is bent, the maximum percent of M is read directly from the load scale on the apparatus. Stiffness shall be calculated as follows:

Stiffness (in-lb) - (M(in-lb) x Load Scale Reading(%))/100

Specimens shall be straightened prior to testing. The angle indicator shall be zeroed for each test in the following manner.

a. By turning the hand crank, apply sufficient load to show a 1 percent reading on the load angle.

b. Set angle indicator to zero.

The motor engaging level shall be held down until the angle indicator indicates a 90 degree specimen bend. Maximum load scale reading shall be recorded. After bending the specimen to 90 degrees, the motor level shall be released and the vise backed up by hand until the load pointer indicates zero. The permanent set angle indicated by the indicator on the angular deflection scale shall be recorded.

TABLE IV - SUPPLIER PART NUMBERS

79M000042 Type Designation	Raychem Part Number
28B1UO	82A0114-28
26B1UO	82A0114-26
24B1UO	82A0114-24
22A1UO	82A0111-22
20A1UO	82A0111-20
18A1UO	82A0111-18
16A1UO	82A0111-16
28B2UO	82A0124-28
26B2UO	82A0124-26
24B2UO	82A0124-24
22A2UO	82A0121-22
20A2UO	82A0121-20
18A2UO	82A0121-18
16A2UO	82A0121-16
28B3UO	82A0134-28
26B3UO	82A0134-26
24B3UO	82A0134-24
22A3UO	82A0131-22
20A3UO	82A0131-20
18A3UO	82A0131-18
16A3UO	82A0131-16
28B4UO	82A0144-28
26B4UO	82A0144-26
24B4UO	82A0144-24
22A4UO	82A0141-22
20A4UO	82A0141-20
18A4UO	82A0141-18
16A4UO	82A0141-16
28B1TJ	82A1114-28
26B1TJ	82A1114-26
24B1TJ	82A1114-24
22A1TJ	82A1111-22
20A1TJ	82A1111-20
18A1TJ	82A1111-18
16A1TJ	82A1111-16

TABLE IV - SUPPLIER PART NUMBERS (CONTINUED)

79M000042 Type Designation	Raychem Part Number
28B2TJ	82A1124-28
26B2TJ	82A1124-26
24B2TJ	82A1124-24
22A2TJ	82A1121-22
20A2TJ	82A1121-20
18A2TJ	82A1121-18
16A2TJ	82A1121-16
28B3TJ	82A1134-28
26B3TJ	82A1134-26
24B3TJ	82A1134-24
22A3TJ	82A1131-22
20A3TJ	82A1131-20
18A3TJ	82A1131-18
16A3TJ	82A1131-16
28B4TJ	82A1144-28
26B4TJ	82A1144-26
24B4TJ	82A1144-24
22A4TJ	82A1141-22
20A4TJ	82A1141-20
18A4TJ	82A1141-18
16A4TJ	82A1141-16
28B1SJ	82A6014-28
26B1SJ	82A6014-26
24B1SJ	82A6014-24
22A1SJ	82A6030-22
20A1SJ	82A6030-20
18A1SJ	82A6030-18
16A1SJ	82A6030-16
28B2SJ	82A6015-28
26B2SJ	82A6015-26
24B2SJ	82A6015-24
22A2SJ	82A6031-22
20A2SJ	82A6031-20
18A2SJ	82A6031-18
16A2SJ	82A6031-16

TABLE IV - SUPPLIER PART NUMBERS (CONTINUED)

79M000042 Type Designation	Raychem Part Number
28B3SJ	82A6016-28
26B3SJ	82A6016-26
24B3SJ	82A6016-24
22A3SJ	82A6032-22
20A3SJ	82A6032-20
18A3SJ	82A6032-18
16A3SJ	82A6032-16
28B4SJ	82A6018-28
26B4SJ	82A6018-26
24B4SJ	82A6018-24
22A4SJ	82A6033-22
20A4SJ	82A6033-20
18A4SJ	82A6033-18
16A4SJ	82A6033-16