MIL-P-549K

20 March 1988

SUPERSEDING

MIL-P-549J

20 July 1983

#### MILITARY SPECIFICATION

# POLES, TENT, UPRIGHT AND RIDGE

This specification is approved for use by all Departments and Agencies of the Department of Defense.

#### 1.SCOPE

- 1.1 Scope. This document covers wooden tent poles, upright and ridge (see 6.1).
- 1.2 Classification. Poles shall be of the following types, classes and sizes, as specified (see 6.2).

```
- Upright
Type I
                - Solid
 Class 1
                    5 feet 8 inches
   Size
                    6 feet 2 inches
    Size
                   7 feet
    Size
                - 21 feet
    Size
                - Jointed
 Class 2
                   8 feet 3 inches
    Size
    Size
                    9 feet
                - 10 feet 3 inches
    Size
                - 12 feet 3 inches
    Size
                - Ridge
Type II
                 - Solid
  Class 1
                    5 feet 11-1/4 inches
    Size
                    7 feet
    Size
                    9 feet
    Size
  Class 2
                 - Jointed
                   11 feet 10 inches including connector
    Size
                    17 feet 3 inches
    Size
                    20 feet 3-1/2 inches
    Size
```

\* Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: U.S. Army Natick Research, Development, and Engineering Center, Natick, MA 01760-5014 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A FSC 8340

\* DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

#### 2. APPLICABLE DOCUMENTS

### 2.1 Government documents.

\* 2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation.

#### **SPECIFICATIONS**

#### **FEDERAL**

*	A-A-208	-	Ink, Marking, Stencil, Opaque (Porous and Non-Porous Surfaces)
*	A-A-1558	-	Paint; Stencil
	QQ-S-635	-	Steel Plate, Carbon
			Steel Sheet and Strip, Medium and High Carbon
			Strapping, Steel, and Seals
	PPP-S-760	-	Strapping, Nonmetallic, (and Connectors)

#### **STANDARDS**

### **MILITARY**

MIL-STD-105 - Sampling Procedures and Tables for Inspection by
Attributes

MIL-STD-129 - Marking for Shipment and Storage

MIL-STD-130 - Identification Marking of U.S. Military Property

- \* (Copies of specifications, standards, and handbooks required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity.)
- \* 2.1.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this specification to the extent specified herein. Unless otherwise specified, the issues shall be those in effect on the date of solicitation.

#### DRAWINGS

# US ARMY NATICK RESEARCH, DEVELOPMENT AND ENGINEERING CENTER

```
- Poles, Tent, Upright and Ridge; Poles, Tent, Upright
5-4-122
           - Poles, Tent, Upright and Ridge; Poles, Tent, Ridge
5-4-123
           - Poles, Tent, Upright and Ridge; Sleeves, Spindles and
5-4-124
              Ferrules
           - Pole, Tent, Ridge, 5 feet 11-1/4 inches
5-4-197
           - Pole, Tent, Ridge, Complete, Jointed, 11 feet 10
5-4-198
               inches and Connector
          - Pole, Tent, Ridge Assembly (20 feet 3-1/2 inches)
5-4-5526
          - Pole, Ridge Male
5-4-5527
          - Pole, Ridge Female
5-4-5528
          - Sleeve, Ridge Pole
5-4-5529
          - Ferrule, Ridge Pole
5-4-5530
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- \* (Copies of drawings, publications, and other Government documents required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity.)
- \* 2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted shall be those listed in the issue of the DODISS specified in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS shall be the issues of the nongovernment documents which are current on the date of solicitation.

### AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

	A 108	-	Steel Bar, Carbon, Cold Finished, Standard Quality
	A 153	-	Zinc Coating (Hot Dip) on Iron and Steel Hardware
*	A 366	-	Steel, Sheet Carbon, Cold-Rolled, Commerical Quality
	A 513	-	Electric-Resistance-Welded Carbon and Alloy Steel Mechanical Tubing
	A 519	-	Seamless Carbon and Alloy Steel Mechanical Tubing
*	A 570	-	Hot-Rolled Carbon Steel Sheet and Strip, Structural Quality
	A 575	-	Merchant Quality Hot-Rolled Carbon Steel Bars
	B 633	_	Electrodeposited Coatings of Zinc on Iron and Steel
*	D 2016	_	Moisture Content of Wood
	D 3951	-	Standard Practice for Commercial Packaging
			<b>0 0</b>

(Copies may be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

(Nongovernment standards and other publications are normally available from the organizations which prepare or which distribute the documents. These documents also may be available in or through libraries or other informational services.)

\* 2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein, the text of this specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

#### 3. REQUIREMENTS

- \* 3.1 First article. When specified in the contract or purchase order, a sample shall be subjected to first article inspection (see 4.3, 6.2, and 6.4).
  - 3.2 <u>Materials</u>. Materials specified shall conform to the applicable documents and requirements specified herein (see 6.5).
  - 3.2.1 Wood. The wood used for the poles shall be uniformly dried, without brashness, honeycombing or case hardening. At the time of fabrication, the wood shall have a moisture content of not less than 8 or more than 12 percent when tested as specified in 4.4.1.1. The slope of the grain shall not exceed 1 inch in 12 inches on any face when tested as specified in 4.4.1.1. The wood shall be any of the following species:

### Soft woods

Cedar, Alaska Yellow
Cedar, Port Orford
Cypress
Douglas-Fir
Hemlock, West Coast
Larch, Western
Pine, Red (Norway)
Pine, Southern, Yellow
Redwood
Spruce, Sitka or Eastern

### Hard woods

Ash, White
Beech
Birch
Elm, Rock
Hickory
Maple, Sugar or Black
(Hard)
Oak
Pecan
Kerruig/Apitong
Phillippine hardwood
Kapur Malaysian hardwood

Soft wood shall have not less than four annual rings per inch, measured radially at either end of the pole. When tested as specified in 4.4.1.1, hard wood, excluding ash, shall weigh not less than 32 pounds per cubic foot at a moisture content of 12 percent. Ash shall weigh not less than 38 pounds per cubic foot at a moisture content of 12 percent.

- \* 3.2.2 Steel tube. Steel tube shall conform to killed or semikilled, seamless or electric resistance welded, numbers MT1010 to MT1020, condition HR or CD of ASTM A 513 or ASTM A 519.
- \* 3.2.3 Steel sheet and strip. Steel sheet and strip shall be cold rolled commercial quality, numbers 1009-1020 conforming to ASTM A 366, hot rolled of ASTM A 570 or 1025-1030 of QQ-S-700.
  - 3.2.4 Steel bar. Steel bar shall conform to grades M-1015 through M-1031 of ASTM A 575 or grades 1015 through 1035 of ASTM A 108.
  - 3.2.5 Steel plate. Steel plate shall conform to QQ-S-635 except that the composition shall be SAE 1015 through SAE 1030.
- \* 3.2.6 Marking ink. The marking ink shall be black in color conforming to type I or II of A-A-1558 or type II or III of A-A-208.
  - 3.2.7 <u>Metal fasteners</u>. Rivets, wood screws, bolts, nuts, and washers shall be of commercial grade conforming to types and sizes as specified on the applicable drawings.
- \* 3.3 Construction. The construction shall conform in all respects to the drawings listed in Section 2 and shall be as specified herein.
  - 3.3.1 Ferrules and sleeves. Sleeves shall be fabricated of steel tube specified in 3.2.2 or steel sheet or strip specified in 3.2.3. Ferrules shall be fabricated of steel specified in 3.2.2, 3.2.3, or 3.2.4. Ferrules and sleeves shall be drive fit where specified on the drawings.
  - 3.3.2 <u>Poles</u>. Wood used in the fabrication of the tent poles shall conform to 3.2.1. The wood components shall be cut in the direction of the grain and shall be smoothly surfaced on all faces. Wood components shall be free of decay, split, wane, unsound knots and other defects. Other defects shall be limited as follows:
  - a. <u>Irregularity of grain</u>. Local irregularity of grain shall not exceed one-third the inscribed diameter on a type I pole or one-third the width of face on which it occurs on a type II pole.
  - b. Knots. Naturally sound, tight knots shall not exceed one-third the inscribed diameter on a type I pole or one-fourth the width of face on which they occur on a type II pole and shall be at least 12 inches apart.

- (1) The knot holes are cleaned out and are free of any bark, pitch and sap.
- (2) The cleaned knot holes are completely filled with an epoxy
- (3) The epoxy fillings within the holes are sound, tight, and shall not exceed the dimension requirements of sound, tight knots as specified herein.
- c. Holes. Holes shall not exceed 1/16 inch in diameter and shall not occur within 2 inches of each other.
- d. Bark and pitch pocket. Bark and pitch pocket shall not exceed 1/8 inch in width and 8 inches in length, or 1/4 inch in width and 4 inches in length. There shall be not more than two such permissible pockets in any pole or section of pole.
- e. <u>Checks</u>. Surface checks shall not exceed 1/32 inch in width and 10 inches in length. There shall be not more than two such permissible surface checks in any pole or section of pole, and they shall be located at least 24 inches apart.
  - f. Shakes. Shakes shall be limited in the same manner as checks.
- g. Warp. Warp shall be measured from a line drawn end to end of the piece and shall not exceed 1/32 of an inch for each foot of length of any pole or section of pole.
- 3.3.3 Pole connector. The pole connector shall conform to Drawing 5-4-198 and shall be fabricated of steel specified in 3.2.4 or 3.2.5.
- 3.3.4 Swivel plate. The swivel plate shall conform to Drawing 5-4-198 and shall be fabricated of steel specified in 3.2.4 or 3.2.5.
- 3.3.5 Spindles. Spindles shall conform to Drawing 5-4-124 and shall be fabricated of steel specified in 3.2.4.
- 3.3.6 Welding. Welding, except spot or projection welds on ridge pole ferrules, shall be continuous, sound, smooth, and free from pits, holes, and fissures. Rough or projecting edges shall be ground smooth. Spot and projection welds shall be sound, smooth, and free from pits, burns, or flashes. Ridge pole sleeves shall be welded at the center of the bottom, as shown on Drawing 5-4-124, or along the lower left or right corner of the sleeve with a continuous weld end-to-end.

- 3.4 Finish. All metal components shown on drawings and specified herein prior to zinc coating shall have all welding, and drilling of holes when applicable completed and be thoroughly cleaned. The zinc coating on all surfaces except fasteners indicated on drawing shall conform to ASTM A 153. All fasteners (bolts, nuts, washers, screws, cotter pins, and rivets) shall be zinc plated in accordance with type IV finish, service condition SC3 of ASTM B 633.
- 3.5 Marking. Each pole or section shall be marked with the letters "U.S.", the contractor's name, trade name or trademark, and the year of contract approximately in the center of its length in legible characters with ink specified in 3.2.6. All marking shall conform to MIL-STD-130. In addition, each pole shall be marked with the following information as applicable:

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Upright - 5 feet 8 inches
Upright - 6 feet 2 inches
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Upright - 7 feet

Upright - Male section for 8 foot 3 inch pole
Upright - Female section for 8 foot 3 inch pole

Upright - Male section for 9 foot pole Upright - Female section for 9 foot pole

Upright - Male section for 10 foot 3 inch pole Upright - Male section for 12 foot 3 inch pole

Upright - Female section for 10 foot 3 inch or 12 foot 3 inch pole

Upright - 21 feet

Ridge - 5 feet 11-1/4 inches

Ridge - 7 feet Ridge - 9 feet

Ridge - Male section for 11 foot 10 inch pole with connector
Ridge - Female section for 11 foot 10 inch pole with connector

Ridge - Male section for 17 foot 3 inch pole Ridge - Extension piece for 17 foot 3 inch pole

Ridge - Female section for 17 foot 3 inch pole Ridge - Male section for 20 foot 3-1/2 inch pole

Ridge - Female section for 20 foot 3-1/2 inch pole

The marking shall be legible, retain the original color, not smear with vigorous rubbing nor crack or peel when immersed in water and tested as specified in 4.4.5.

- \* 3.6 Workmanship. The tent poles shall conform to the quality of product established by this document and the occurrence of defects shall not exceed the applicable acceptable quality levels.
  - 4. QUALITY ASSURANCE PROVISIONS
  - 4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified

in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in this document where such inspections are necessary to assure supplies and services conform to prescribed requirements.

- \* 4.1.1 Responsibility for compliance. All items must meet all requirements of sections 3 and 5. The inspection set forth in this document shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the document shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.
- \* 4.1.2 Responsibility for dimensional requirements. Unless otherwise specified in the contract or purchase order, the contractor is responsible for assuring that all specified dimensions have been met. When dimensions cannot be examined on the end item, inspection shall be made at any point, or at all points in the manufacturing process necessary to assure compliance with all dimensional requirements.
  - 4.2 <u>Classification of inspection</u>. The inspection requirements specified herein are classified as follows:
    - a. First article inspection (see 4.3).
    - b. Quality conformance inspection (see 4.4).
  - 4.3 <u>First article inspection</u>. When a first article is required (see 6.2), it shall be examined for the defects specified in 4.4.3 and 4.4.4 and tested for the characteristics specified in 4.4.5. The presence of any defect or failure to pass any test shall be cause for rejection of the first article.
  - 4.4 Quality conformance inspection. Unless otherwise specified, sampling for inspection shall be performed in accordance with MIL-STD-105.
  - 4.4.1 Component and material inspection. In accordance with 4.1, components and materials shall be inspected in accordance with all the requirements of referenced documents unless otherwise excluded, amended, modified, or qualified in this document or applicable purchase document.
  - 4.4.1.1 Component testing. In addition to the quality assurance provisions of the subsidiary documents and drawings, testing shall be performed on components listed in table I for the test characteristics shown. The acceptable quality levels (AQL) shall be expressed in terms of percent defective.

TABLE I. Component tests

Component and lot				Requirement	nt	Number determi-				
expressed in terms of	Charac- teris- tic	Require- ment para.	Test method para.	applicable to Individ- Lot ual unit ave	e to Lot average	nations per sample unit	Results reported as	Sample unit	Inspection level	AQL
Wood (100 Blanks)	Moisture 3.2.1 content	3.2.1	ASTM D 2016 <u>1</u> /	×	1	m	Average of 3 determinations to near-est 0.1%	"Blank prior to mill- ing"		6.5
	Slope of grain	3.2.1	4.5.1	×	ı	1	Pass or fail	"Blank prior to mill- ing"	S-1	6.5
	Weight of hard- wood	3.2.1	4.5.2	×	i	1	To nearest 0.1 pound per cu. ft.	One 12- inch piece	S-1	6.5

or more than 12 percent moisture content shall be Any sample unit of wood having less than 8 classified as defective.

\* 4.4.2 <u>In-process inspection</u>. Inspection of sub-assemblies shall be made to ascertain that construction details which cannot be examined in the finished product are in accordance with specified requirements. The Government reserves the right to exclude from consideration for acceptance, any material or service for which in-process inspection has indicated nonconformance.

Reg	uirement operation	Requirement paragraph
a.	Ferrules and sleeves are drive fit where specified on applicable drawings.	3.3.1
b.	<ul> <li>If unsound knots are removed:</li> <li>(1) The knot holes are cleaned out and are free of any bark, pitch, and sap prior to filling with epoxy filler.</li> <li>(2) The cleaned knot holes are completely</li> </ul>	3.3.2 (b) (1)
	filled with an epoxy filler prior to wood preservative treatment.	3.3.2 (b) (2)
c.	Prior to zinc coating:  (1) Spot and projection welds are sound, smooth and free from pits, burns, and flashes.  (2) All other welds are continuous, sound, smooth and free from pits, holes, and fissures. rough or projecting edges are ground smooth.	3.3.6 th, Any
d.	All metal components are throughly cleaned prior to zinc coating.	3.4
е.	Driving of wood screw by hammering will not be permitted.	3.6

4.4.3 End item visual examination. The end items shall be examined for the defects listed in table II. The lot size shall consist of all completely fabricated poles of one type, class, and size, as applicable, submitted for inspection at one time. The sample unit shall be one pole. The inspection level shall be II and the AQL, expressed in terms of defects per hundred units, shall be 2.5 for major defects, 6.5 for major and minor combined defects, and 15 for total (major, minor A, and minor B combined) defects.

TABLE II. End item visual defects

		Classif	_	
Examine	Defect	Major	Mit A	nor I
Finish	Metal component or fastener not finished as specified	x		
	Area of no zinc coating exposing bare metal		X	3
	Area of thin zinc coating			•
Construction and workmanship	Any component missing Any component not fabricated as specified e.g. ferrules and sleeves not drive fit where required, i.e.	X		
	are loose fit Brashness, honeycombing or case		X	
	hardening of wood	X		
	Species of wood not as specified  Less than four annual rings per inch  at either end of the soft wood	X		
	component Wood component not cut in the direction		X	
	of the grain Wood component not smoothly surfaced on		X	
	all faces			X
	Evidence of decay, split, or wane Irregularity of grain exceeding 1/3 the inscribed diameter of a type I pole or exceeding 1/3 the width of the face of		X	
	a type II pole  Loose or unsound knot	X	x	
	Any epoxy filled hole having evidence of bark, pitch or sap			Х
	Any epoxy filled hole not completely			4
	filled with epoxy filler Any epoxy filling that is loose or not			X
	sound Any knot or epoxy filled hole exceeding			X
	1/3 the inscribed diameter of a type I pole, or 1/4 the width of the face of			
	type II pole	X		
	Permissible knots or epoxy filled holes less than 12 inches apart		х	

TABLE II. End item visual defects (cont'd)

		Classif	ication
xamine	Defect	Major	Mino
Construction and	Any hole (except required drill		
workmanship (cont'd)	holes) more than 1/16 inch in		
	diameter		X
	Holes (not exceeding 1/16 inch in		
	diameter) less than 2 inches apart		X
	Bark or pitch pocket exceeding 1/8		
	inch wide and 8 inches long or 1/4		
	inch wide and 4 inches long		X
	More than two permissible bark or		
	pitch pockets in any pole or section	17	
	of pole	X	
	Surface check or shake exceeding 1/32		х
	inch in width or 10 inches in length		Λ.
	More than two permissible surface checks or shakes in any pole or		
	section of pole		x
	Two surface checks or shakes, not		**
	exceeding 1/32 inch in width or 10		
	inches in length, located less than		
	24 inches apart		X
	Total warp per pole or section of pole		
	exceeds 1/32 inch for each foot of		
	length of pole or section of pole	X	
	Rivet not neatly and securely set, e.g.		
	is bent, head is damaged or loose		2
	Wood screw not securely screwed in		
	place, e.g. is loose		;
	Bolt not securely fastened in the		
	drilled hole, e.g. is loose		2
	Nut not drawn up wrench tight, e.g.		
	can be removed by hand		2
	Pole not clean, e.g. has evidence of grease or dirt		;
	Malformation or deformation	X	•
	Splinter, sliver, gouge, saw cut,	Λ	
	rough or torn grain, or is chipped		3
	Any non-permissible defect that has		•
	been filled with plastic wood or		
	other filler material (except for		
	epoxy filled holes as specified		
	herein)		X
	Metal component has crack or split	X	

TABLE II. End item visual defects (cont'd)

		Classif	icati	on
Examine	Defect	Major	Mir A	nor B
EXAMILIE	Defect			
Construction and workmanship (cont'd)	Metal component has burr or sharp edge			X
	Metal component is bent out of shape to the extent that it cannot be used	X		
	Metal component is bent out of shape but can still be used		x	
	Threads of bolt, as applicable, not peened or upset as specified on applicable drawing			x
Welding	Weld is missing	X		
	Not continuous, sound, smooth, or has pits, holes, or fissures (except		v	
	spot and projection welds) Rough or projecting edge not ground smooth		X	X
	Spot or projection weld is not smooth, sound or has pits, burns,			
	or flashes		X	
Marking for identification	Missing, illegible, incomplete,			
ruencilication	incorrect, or not applied in the specified location			x

<sup>4.4.4</sup> End item dimensional examination. The end items shall be examined for the dimensions annotated with an asterisk on Drawings 5-4-122, 5-4-123, 5-4-197, 5-4-198, and 5-4-5526, as applicable. Any dimension not within the specified tolerance shall be classified as a defect. The lot size shall be expressed in units of poles. The sample unit shall be one pole. The inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 4.0.

<sup>\* 4.4.5</sup> End item testing. The end items shall conform to the marking requirements specified in 3.5 when tested as specified in 4.5.3. The lot size shall be expressed in units of poles. The sample unit shall be one male section, female section, extension piece or solid pole, as applicable. The inspection level shall be S-l and the AQL, expressed in terms of defects per hundred units, shall be 6.5.

\* 4.4.6 Packaging examination. The fully packaged end items shall be examined for the defects listed below. The lot size shall be expressed in units of shipping containers. The sample unit shall be one shipping container fully packaged. The inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 2.5.

Examine	Defect
Marking (exterior and interior)	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application.
Materials	Any component missing, damaged, or not as specified.
Strapping	Not type specified.  Not class or grade specified, as applicable.  Less than a minimum of 1/2 inch by 0.020 inch in size.  Less than the required number of straps; straps misplaced.
Workmanship	Poles with spindles not alternated end for end within the bundle; bolts not inserted in place; nuts not tightly drawn up; connectors and swivel plates not attached; jointed poles not packed disassembled. Not all sections of each pole in the same bundle, as applicable. The 4-foot extension piece not secured to the male (longest) section with a minimum of two straps.
Content	Number per bundle is more or less than required.

### 4.5 Methods of inspection.

4.5.1 Slope of wood grain. The slope of grain shall be determined by combining the grain direction of two adjacent faces of a square or rectangular piece. If poles are not rectangular, slope of grain may be determined by testing on two faces perpendicular to each other or by testing pole blanks before machining. When one of these faces is straight grained, the true slope of grain is shown on the other face. When there is a slope on both faces, the true or combined slope is greater than the slope on either face. Slope of grain is shown on edge grained faces by the summerwood bands, on flat grained faces by resinducts, by direction in which a free flowing ink or dye spreads, or by the course taken by a narrow strip lifted by a knife point and torn out. Direction of fiber may also be measured by a slope of grain detector. Any sample unit having a slope of wood grain exceeding l-inch in 12-inches shall be classified as defective.

- 4.5.2 Weight of wood. The weight of the wood, expressed in pounds per cubic foot, used for tent poles shall be determined by any approved commercial method. Any sample unit of hardwood, excluding ash, having a weight less than 32 pounds per cubic foot at a moisture content of 12 percent shall be classified as defective. Any sample unit of ash having a weight less than 38 pounds per cubic foot at a moisture content of 12 percent shall be classified as defective.
- 4.5.3 Resistance to water immersion. Immerse the sample unit in distilled water at 70°F for a minimum period of 4 hours. Remove the sample unit from the water and air dry for a minimum period of 1 hour. Rub the marking vigorously with a finger. Visually examine the marking. Any illegible, change in color, smeared, cracked, or peeled marking shall be classified as a defect.

### 5. PACKAGING

- 5.1 Packing. Packing shall be level A or Commercial as specified (see 6.2).
- 5.1.1 Level A packing. Tent poles shall be prepared for shipment by packing in bundles as specified in table III. Precaution shall be taken to insure the wood surface of the poles is not damaged by the banding material. Metal, plastic or fiberboard edge protection shall be positioned under the straps at all contact points.
- 5.1.2 Commercial packing. Tent poles shall be packed in accordance with ASTM D 3951.

TABLE III. Number of poles and weight per bundle

Pole Type	Length of bundle $1/$	No. per bundle $\frac{2}{}$	Layers per bundle	No. per layer	Approx. wt.(lbs)
Type I - Upright					
Class 1 - Solid					
Size 5 ft. 8 in.	6 '	12	3	4	50
Size 6 ft. 2 in.	6'6"	12	3	4	55
Size 7 ft.	7 '4"	21	3	7	105
Size 21 ft.	21'	Shipped loose	-	_	125
Type I - Upright					
Class 2 - Jointed 4/					
Size 8 ft. 3 in.	5'2"	15	5	6 sections	106
Size 9 ft.	5'11-1/2"	12	4	6 sections	108
Size 10 ft. 3 in.	6'11-1/2"	4	2	4 sections	68
Size 12 ft. 3 in.	6'11-1/2"	4	2	4 sections	80

TABLE III. Number of poles and weight per bundle (cont'd)

Pole type	Length of bundle $\frac{1}{2}$	No. per bundle $\frac{2}{}$	Layers per bundle	No. per layer	Approx.wt/lbs.
Type II - Ridge					
Class 1 - Solid					
Size 5 ft. 11-1/4"	5/11-1/2"	6	2	3	48
Size 7 ft.	7'	6	2	3	56
Size 9 ft.	9'	6	2	3	72
Type II - Ridge 3/					
Class 2 - Jointed 4/					
Size 11 ft. 10 in.				_	
w/connector	7'10-1/2"		2	2 section	- · -
Size 17 ft. 3" 5/	7'10-1/2"	2	2	3 section	s 100
Size 20 ft. $3-1/2$ "	10'7"	2	2	2 section	s 104

Length of bundles is based on overall length which includes the length of pole or section plus the length of spindle or length of pole or section plus the length of connector where applicable.

<sup>\* 2/</sup>Each complete bundle of poles shall be securely strapped with not less than three straps 1/2 inch by 0.020 inch, class i, type I, regular duty, finish B, grade 2 conforming to QQ-S-781 or 1/2 inch by 0.030 inch, type II conforming to PPP-S-760. Two straps shall be applied approximately one-sixth the length of the bundle from each end, and the remaining strap shall be applied around the center of the bundle. Poles with spindles shall be alternated end for end within the bundle. All bolts shall be inserted in place and nuts drawn up tightly to prevent loss in transit. Each bundle shall have three strips of wood 2-5/8 inches wide by 3/8 inch thick placed crosswise between each layer and centered under each strap. The length of the strips shall be equal to the width of the bundle.

<sup>3/</sup> The connectors and swivel plates shall be attached.

Jointed poles shall be packed disassembled. Jointed poles shall be packed with all sections of each pole in the same bundle.

<sup>5/</sup> Prior to packing, the four-foot extension piece shall be secured to the male (longest) section with a minimum of two straps as specified in 2/.

- 5.2 Marking. In addition to any special marking required by the contract or purchase order, bundles shall be marked in accordance with MIL-STD-129 or ASTM D 3951, as applicable.
  - 6. NOTES
- 6.1 Intended use. The tent poles are intended for use with tents listed in 6.3.
  - 6.2 Ordering data. Acquisition documents should specify the following:
    - a. Title, number, and date of this document.
    - b. Type, class, and size of poles required (see 1.2).
    - c. When a first article is required (see 3.1, 4.3, and 6.4).
    - d. Selection of applicable level of packing (see 5.1).
- 6.3 Poles required. The types, classes, sizes, and number of poles required for various tents and latrine screen are as follows:

Poles, tent, type I, class 1	Quantity
Size - 5 foot 8 inch	
Tent, command post, M-1945	8
(complete with pins and poles)	
Tent, general purpose, large	12
(complete with pins and poles)	10
Tent, general purpose, medium	10
(complete with pins and poles)	
Size - 6 foot 2 inch	
Tent, general purpose, large	4
(complete with pins and poles)	
Tent, general purpose, medium	4
(complete with pins and poles)	• •
Tent, kitchen, flyproof, M-1948	16
(complete with pins and poles)	
Size - 7 foot	
Tent, kitchen, flyproof, M-1948	1
(complete with pins and poles)	
Screen, latrine	7
(complete with pins and poles)	
Size - 21 foot	
Tent, assembly, M-1942	3
(complete with pins and poles)	

Poles, tent, type I, class 2	Quantity
Size - 8 foct 3 inch (complete, jointed) Tent, assembly, M-1942 (complete with pins and poles)	30
Size - 9 foot (complete, jointed) Tent, command post, M-1945	2
(complete with pins and poles) Tent, kitchen flyproof, M-1948 (complete with pins and poles)	5
Size - 10 foot 3 inch (complete, jointed) Tent, general purpose, medium (complete with pins and poles)	2
Size - 12 foot 3 inch (complete, jointed) Tent, general purpose, large	4
(complete with pins and poles) Tent, kitchen flyproof, M-1948 (complete with pins and poles)	2
Poles, tent, type II, class 1	
Size - 5 foot 11-1/4 inch Tent, kitchen, flyproof, M-1948 (complete with pins and poles)	1
Size - 7 foot Screen, latrine (complete with pins and poles)	1
Size - 9 foot Screen, latrine (complete with pins and poles)	2
Poles, tent, type II, class 2	
Size - 11 foot 10 inch with connector Tent, kitchen, flyproof, M-1948 (complete, jointed)	1
Size - 17 foot 3 inch (complete, jointed) Tent, general purpose, medium (complete with pins and poles)	1
Size - 20 foot 3-1/2 inch (complete, jointed)  Fly, tent, fire, water, weather and mildew resistant  (complete with fly, pins and poles)  For Marine Corps use	1

- 6.4 First article. When a first article is required, it shall be inspected and approved under the appropriate provisions of FAR 52.209. The first article should be a preproduction sample. The contracting officer should specify the appropriate type of first article and the number of units to be furnished. The contracting officer should include specific instructions in all acquisition instruments regarding arrangements for selection, inspection, and approval of the first article.
- 6.5 Recycled material. It is encouraged that recycled material be used when practical as long as it meets the requirements of this document (see 3.2).
- 6.6 International standardization agreements. Certain provisions of this document are the subject of international standardization agreement number STANAG 2311. When amendment, revision or cancellation of this document is proposed which will effect or violate the international agreement concerned, the preparing activity will take appropriate reconciliation action through international standardization channels including departmental standardization offices, if required.
- \* 6.7 Subject term (key word) listing.

Poles, Tent Shelter Tent

\* 6.8 Changes from previous issue. The margins of this document are marked with an asterisk (\*) to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability wheatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content, irrespective of the marginal notations and relationship to the previous issue.

Custodians:

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Review activities:

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User activities:

Navy - MC Air Force - 45 Project NO. 8340-0507

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