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November 27, 1978
SUPERSEDING
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FEDERAL SPECIFICATION

WIRE, STEEL, CARBON (ROUND, BARE AND COATED)

This specification was approved by the Commissioner, Federal Supply Service, General Services Administration, for use of all Federal Agencies.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers round carbon steel wire, bare, and coated.

1.2 Classification.

1.2.1 Compositions. The steel wire shall be of the following grade numbers (refer to ASTM A510) as specified (see 6.2):

AISI Numbers	
1006	1018
1008	1020
1010	1035
1015	1045

1.2.2 Finishes. The wire shall be supplied in the following finishes as specified (see 6.2):

Finish 1 - Bare.
Finish 2 - Coppered.
Finish 3 - Tinned.
Finish 4 - Liquor.
Finish 5 - Galvanized.
Finish 6 - Aluminized.

1.2.2.1 Weight of zinc coating. Zinc coated galvanized wire shall be furnished in the following weights (see 3.6.4) as specified (see 6.2):

	Regular
Class 1 - light.	
Class 2 - medium.	
Class 3 or class A - heavy.	

Extra heavy
Class B.
Class C.

1.2.3 Tensile strength. The wire shall be furnished in accordance with the following tensile strength designations (see 3.5.1 and 6.4) as specified (see 6.2):

Finish	Tensile strength designation
Nos. 1, 2, and 4.	Annealed, Annealed-in-process, hard drawn.
Nos. 3, 5, and 6.	Soft, medium, and hard.

1.2.4 Wire size. Wire size shall be as specified in the contract or order in accordance with ASTM A510 (see 6.2).

2. APPLICABLE DOCUMENTS

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

Federal Standard:

Fed. Std. No. 123 - Marking for Shipment (Civil Agencies).

(Activities outside the Federal Government may obtain copies of Federal Specifications, Standards, and Handbooks as outlined under General Information in the Index of Federal Specifications and Standards and at the prices indicated in the Index. The Index, which includes cumulative monthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, Government Printing Office, Washington, DC 20402.

(Single copies of this specification and other Federal Specifications required by activities outside of the Federal Government for bidding purposes are available without charge from Business Service Centers at the General Services Administration Regional Offices in Boston, New York, Philadelphia, Washington, DC, Atlanta, Chicago, Kansas City, MO., Fort Worth, Houston, Denver, San Francisco, Los Angeles, and Seattle, WA.

(Federal government activities may obtain copies of Federal Specifications, Standards, and Handbooks, and the Index of Federal Specifications and Standards, from established distribution points in their agencies.)

Military Standard:

MIL-STD-163 - Steel Mill Products Preparation for Shipment and Storage.

(Copies of Military Specifications and Standards required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

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

American Society for Testing and Materials (ASTM):

A90 - Standard Methods of Test for Weight of Coating on Zinc-Coated (Galvanized) Iron or Steel Articles.
A370 - Standard Methods and definitions for Mechanical Testing of Steel Products.
A428 - Standard Methods of Test for Weight of Coating on Aluminum Coated Iron or Steel Articles.
A510 - Standard Specification for General Requirements for Wire Rods and Coarse Round Wire, Carbon Steel.
A641 - Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.
B6 - Standard Specification for Zinc Metal (Slab Zinc).
B339 - Standard Classification of Pig Tin.
B341 - Standard Specification for Aluminum coated (Aluminized) Steel Core Wire for Aluminum Conductors, Steel Reinforced (ACSR/AZ).
E30 - Standard Methods of chemical Analysis of Steel, Cast Iron, Open Hearth Iron and Wrought Iron.

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

National Motor Freight Traffic Association, Inc., Agent:

National Motor Freight Classification.

(Application for copies should be addressed to the American Trucking Associations, Inc., Traffic Department, 1616 P Street, N.W., Washington, DC 20036.)

Uniform Classification Committee, Agent:

Uniform Freight Classification.

(Application for copies should be addressed to the Uniform Classification Committee, Tariff Publishing Officer, Room 1106, 222 South Riverside Plaza, Chicago, IL 60606.)

3. REQUIREMENTS

3.1 Material.

3.1.1 Wire. The wire shall be carbon steel of the specified composition conforming to ASTM A510.

3.1.2 Tin coating. When tin coating is applied by the hot-dip process, the tin shall conform to ASTM B339, Grade A.

3.1.3 Zinc coating. When zinc coating is applied by the hot-dip process, the zinc shall conform to ASTM 36, prime western grade or better.

3.1.4 Aluminum coating. When aluminum coating is applied by the hot dip process, the aluminum shall conform to the following impurity limits:

Copper, maximum, percent	0.10
Iron, Maximum, percent	0.50

3.2 Practice. Unless otherwise specified (see 6.2), steel making practice shall be at the manufacturer’s option.

3.3 Chemical analysis requirements.

3.3.1 Cast or heat analysis. A cast or heat analysis shall be furnished by the supplier.

3.3.2 Product analysis. When specified (see 6.2), a product analysis shall be performed on the wire. The product analysis shall meet the requirements for the designated steel within the tolerances prescribed in ASTM A510. Test methods shall be as described in ASTM E30.

3.4 Dimensional requirements.

3.4.1 Bare, coppered, tinned, and liquor finish wire. The diameter of the bars, coppered, tinned, and liquor finish wire shall not vary by more than the amount indicated in ASTM A510.

3.4.2 Zinc-coated wire. The diameter of the zinc-coated wire shall not vary by more than the amount indicated in ASTM A641, for regular class 1, 2, and 3 coatings. The diameter tolerance for class A, B, and C coatings shall be as follows:

Wire diameter (inch)	Tolerance, plus and minus, inch		
	Class A	Class B	Class C
0.035 to under 0.076	0.002	0.003	0.003
0.076 to under 0.148	0.004	0.004	0.004
0.148 to 0.250, incl.	0.004	0.005	0.005
Over 0.250 to 0.500, incl.	0.005	0.006	0.006

3.4.3 Aluminum coated wire. The diameter or the aluminum coated wire shall not vary by more than 0.005 inch from the decimal equivalent of the standard gage specified in the contract, as shown in ASTM A510.

3.5 Mechanical properties.

3.5.1 Tensile strength. The tensile strength for finishes 1, 2, and 4 shall conform to the requirements of table I. The tensile strength for finishes 3, 5, and 6, and shall conform to the requirements of ASTM A641 or shall be in accordance with the agreement between the purchaser and manufacturer.

Table I. Tensile strength requirements

Wire diameter Inches	Tensile strength, pounds per square inch				
	Annealed Finishes 1, 2, 4	Annealed-in-process		Hard drawn	
		Finishes 1, 2, 4		Finishes 1, 2, 4	
	Maximum	Minimum	Maximum	Minimum	Maximum
		Grade 1006			
Less than 0.035	60,000	60,000	95,000	-	-
0.035 0.047	60,000	60,000	90,000	-	-
0.048 0.057	60,000	60,000	90,000	105,000	155,000
0.058 0.071	60,000	60,000	90,000	100,000	150,000
0.072 0.085	60,000	60,000	90,000	90,000	140,000
0.086 0.105	60,000	55,000	85,000	85,000	130,000
0.106 0.127	60,000	55,000	80,000	80,000	120,000
0.128 0.147	60,000	55,000	80,000	75,000	110,000
0.148 0.177	60,000	55,000	80,000	70,000	105,000
0.178 0.191	60,000	50,000	70,000	65,000	100,000
0.192 0.249	60,000	50,000	70,000	60,000	95,000
0.250 0.327	60,000	50,000	70,000	50,000	85,000
0.328 0.499	60,000	47,000	67,000	50,000	80,000

Table I. Tensile strength requirements - continued

Wire diameter Inches	Tensile strength, pounds per square inch: Annealed Finishes 1, 2, 4 Maximum	Annealed-in-process Finishes 1, 2, 4 Minimum	Annealed-in-process Finishes 1, 2, 4 Maximum	Hard drawn Finishes 1, 2, 4 Minimum	Hard drawn Finishes 1, 2, 4 Maximum
		Grades 1008 and 1010			
Less than 0.035	70,000	60,000	95,000	-	-
0.035 0.047	65,000	60,000	90,000	-	-
0.048 0.057	65,000	60,000	90,000	-	-
0.058 0.071	65,000	60,000	90,000	110,000	155,000
0.072 0.085	65,000	60,000	90,000	100,000	145,000
0.086 0.105	65,000	60,000	90,000	90,000	135,000
0.106 0.127	65,000	58,000	83,000	85,000	125,000
0.128 0.147	65,000	58,000	83,000	80,000	115,000
0.148 0.177	65,000	58,000	83,000	75,000	110,000
0.178 0.191	65,000	55,000	75,000	70,000	105,000
0.192 0.249	65,000	55,000	75,000	65,000	100,000
0.250 0.327	65,000	53,000	73,000	60,000	90,000
0.328 0.499	65,000	53,000	73,000	55,000	85,000
		Grade 1015			
Less than 0.035	75,000	65,000	95,000	-	-
0.035 0.47	70,000	65,000	95,000	-	-
0.048 0.57	70,000	65,000	95,000	-	-
0.058 0.71	70,000	65,000	95,000	-	-
0.072 0.085	70,000	65,000	95,000	105,000	155,000
0.086 0.105	70,000	65,000	95,000	95,000	140,000
0.106 0.127	70,000	60,000	85,000	90,000	130,000
0.128 0.147	70,000	60,000	85,000	85,000	125,000
0.148 0.177	70,000	60,000	85,000	80,000	120,000
0.178 0.191	70,000	58,000	78,000	75,000	115,000
0.192 0.249	70,000	58,000	78,000	70,000	105,000
0.250 0.327	70,000	55,000	75,000	65,000	95,000
0.328 0.499	70,000	55,000	75,000	60,000	90,000
		Grades 1018 and 1020			
Less than 0.035	75,000	70,000	100,000	-	-
0.035 0.047	75,000	70,000	100,000	-	-
0.048 0.057	75,000	70,000	100,000	-	-
0.058 0.171	75,000	70,000	100,000	-	-
0.072 0.085	75,000	70,000	100,000	-	-
0.086 0.105	75,000	70,000	100,000	115,000	165,000
0.106 0.127	75,000	65,000	90,000	105,000	150,000
0.128 0.147	75,000	65,000	90,000	95,000	140,000
0.048 0.177	75,000	65,000	90,000	85,000	125,000
0.178 0.191	75,000	62,000	82,000	80,000	120,000
0.192 0.249	75,000	62,000	82,000	75,000	115,000
0.250 0.327	75,000	60,000	80,000	70,000	105,000
0.328 0.499	75,000	60,000	80,000	65,000	100,000

Table I. Tensile strength requirements - continued

	Tensile strength, pounds per square inch				
	Annealed	Annealed-in-process		Hard drawn	
	Finishes 1, 2, 4	Finishes 1, 2, 4		Finishes 1, 2, 4	
Wire diameter	Maximum	Minimum	Maximum	Minimum	Maximum
Inches		Grade 1035			
Less than 0.086	85,000	75,000	110,000	-	-
0.086 0.105	85,000	75,000	110,000	135,000	190,000
0.106 0.127	85,000	75,000	110,000	125,000	180,000
0.128 0.147	85,000	75,000	110,000	110,000	160,000
0.148 0.177	85,000	75,000	110,000	100,000	145,000
0.178 0.191	85,000	70,000	100,000	95,000	140,000
0.192 0.249	85,000	70,000	100,000	90,000	135,000
0.250 0.327	85,000	70,000	100,000	85,000	125,000
0.328 0.499	85,000	70,000	100,000	80,000	120,000
Inches		Grade 1045			
Less than 0.086	100,000	90,000	125,000	-	-
0.086 0.105	100,000	90,000	125,000	160,000	220,000
0.106 0.127	100,000	90,000	125,000	145,000	205,000
0.128 0.147	100,000	90,000	125,000	135,000	190,000
0.148 0.177	100,000	85,000	120,000	125,000	175,000
0.178 0.191	100,000	85,000	115,000	115,000	160,000
0.192 0.249	100,000	80,000	110,000	105,000	150,000
0.250 0.327	100,000	80,000	110,000	100,000	140,000
0.328 0.499	100,000	80,000	110,000	100,000	140,000

3.5.2 Elongation. Annealed wire of grade Nos. 1006, 1008, 1010, and 1015, finishes 1, 2, 3, and 4 shall have elongation not less than 15 percent in 10 inches. Annealed wire of grade Nos. 1018, 1020, 1035, and 1045, finishes 1, 2, 3, and 4 shall have elongation not less than 10 percent in 10 inches.

3.5.3 Coiling test. Bare or coated wire shall withstand wrapping in a closed helix without cracking or fracture as specified in 4.4.5. this is not be construed as a requirement for coatings.

3.6 Finish.

3.6.1 Bare wire. Hard and annealed-in-process wire shall have a characteristic finish of either a grayish or slightly brownish cast, at the option of the manufacturer. Annealed wire shall have a black or grayish (lime bright annealed) finish as specified (see 6.2). If neither finish is specified, either may be furnished at the option of the manufacturer. Black annealed finish wire shall be free from excessive oxide scale.

3.6.2 Coppered wire. Coppered wire shall have a coating of copper applied by electroplating or chemical deposition by immersion in a copper sulfate solution before the wire is drawn through a die.

3.6 Tinned wire. Tinned wire shall have a coating of tin applied the hot-dip (molten bath) method. The weight of tin per square foot of uncoated surface for the size of wire specified shall conform to the requirements of table II.

Table II. Weight of tin coating

Diameter of wire inch	Weight of tin coating minimum, oz/ft2
0.035 to 0.0625	0.015
0.0626 to 0.1205	0.020
0.1206 to 0.1620	0.025
0.1621 to 0.1920	0.030
0.1921 and over	0.035

3.6.4 Galvanized wire. The zinc-coated (galvanized) wire shall have a coating of zinc applied by either the hot-dip (moltan bath) or electro-plating process. The weight of zinc coating per square foot of uncoated surface for the class of coating specified shall comply with the require-ments of ASTM A641.

3.6.5 Liquor finish wire. Liquor finish wire may be supplied annealed, annealed-in-process, or hard. When supplied annealed, it shall be bright annealed.

3.6.6 Aluminized wire. The aluminum coated (aluminized) wire shall have a coating of aluminum applied by the hot-dip (moltan bath) process. The weight of aluminum coating per square foot of uncoated surface shall comply with the requirements of ASTM B341.

3.6.7 Adherence of coating. Coatings of copper, tin, zinc, aluminum, and liquor finish wire shall not flake or be removed by rubbing with bare fingers when the wire is subject to the tests specified in 4.4.6 and 4.4.6.1.

3.7 Workmanship.

3.7.1 Quality. The wire shall be of uniform quality, clean and free from kinks, waviness, splits, cracks, and form injurious laps, seams, scale, segregation, decarburization, and other imperfections detrimental to the forming, machining, or fabrication of finished wire. On annealed wire, kinks shall be minimized as agreed between supplier and purchaser.

3.7.2 Coating. Coppered, tinned, galvanized, aluminized, and liquor finish wire shall be free of bare of imperfectly coated areas and shall be smooth, uniform, and scratch free.

3.7.3 Coils. Wire shall be furnished in coils, spools, or reels without joints of any kind except welds prior to drawing on hard and annealed-in-process wire, welds prior to coating, and welds made at finished size on annealed wire.

3.8 Marking. Unless otherwise specified (see 6.2), one identification tag shall be attached to each coil, spool, or reel. Tags shall be marked with the name of the material, grade number, tensile strength designation, coating weight designation, size, and number of contract or order.

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 or all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier 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 the specification where such inspections are deemed necessary to assure that supplies and services conform to prescribed requirements.

4.2 Lot. Unless otherwise specified (see 6.2), a lot shall consist of all wire submitted for inspection at the same time, of the same composition, tensile strength designation, size, finish, and when applicable, coating weight, and manufactured by the same process.

4.3 Sampling.

4.3.1 Sampling for product analysis. For product analysis (see 3.3.2), wire shall be taken from each lot to prepare a sample weighing not less than 2 ounces. The sample shall consist of fine chips of metal, free of oil, any coating material (tin, copper, etc.), and other foreign matter that would interfere with a chemical analysis, and from the full cross section of the wire.

4.3.2 Sampling for examination and tests. Seven sample units or 10 percent of the units, whichever is less, shall be randomly selected form each lot. A unit shall be one coil, spool, or reel of wire.

4.3.3 Test samples. A test sample of sufficient length shall be taken form each sample unit. Additional lengths may be taken to

determine compliance with any special requirements contained in the contract or order. Each test sample taken shall be identified by sample unit and lot number.

4.4 Inspection and tests. Unless otherwise specified (see 6.2), inspection and tests shall be conducted in accordance with the applicable methods listed.

4.4.1 Cast or heat analysis. Cast or heat analysis (see 3.3.1) shall be in accordance with the manufacturer's standard practice.

4.4.2 Product analysis. When tested in accordance with ASTM E30, the product analysis shall be in accordance with the requirements of 3.3.2.

4.4.3 Tensile strength. One test specimen, free from kinks and not less than 15 inches long, shall be taken form each test sample. The distance between the jaws of the testing machine, with the specimen ready for testing, shall be not less than 10 inches. When tested in accordance with ASTM A370, the tensile strength of the wire shall conform to the requirements of 3.5.

4.4 Elongation. For annealed wire, the elongation shall be determined during the tensile-strength test as the permanent increase in length after failure of a marked section originally 10 inches in length. The elongation shall comply with the requirements of 3.5.2.

4.4.5 Coiling test. One test specimen shall be taken from each test sample. The specimen shall be not less than 12 inches long and shall not be crooked or kinked. The specimen shall be wrapped in a closed helix for at least six complete turns around a cylindrical mandrel. For wire 0.1620 inch in diameter and smaller, the diameter of the mandrel shall be equal to the diameter of the wire; for wire larger than 0.1620 inch up to and including 0.3120 inch in diameter, the mandrel diameter shall be twice the diameter of the wire. The wrapping test for wire larger than 0.3120 inch in diameter shall not be required, unless specified and only in accordance with the test conditions agreed to between the supplier and the purchaser. Direct visual examination without optical magnification after wrapping shall be made for compliance with the requirements of 3.5.3.

4.4.6 Adherence of copper, tin, and liquor coatings. One test specimen, not less than 12 inches long and not crooked or kinked, shall be taken from each test sample. The specimen shall be wrapped at a rate of not more than 15 turns per minute, in a closed helix of at least two turns around a cylindrical mandrel. The mandrel shall have a diameter equal to three times the nominal diameter of the wire specimen for grade Nos. 1006, 1008, 1010, and 1015, and five times the nominal diameter of

the wire specimen for grade Nos. 1018, 1020, 1035, and 1045. The wire surface of the helix shall be examined for compliance with the requirements of 3.6.7. Visual examination shall be made without optical magnification.

4.4.6.1 Adherence of zinc or aluminum coating. For zinc-coated wire, regular classes 1, 2, 3, A, 5, or C, and for aluminum-coated wire, one test specimen, not less than 12 inches long and not crooked or kinked, shall be taken from each test sample. The specimen shall be wrapped at a rate of not more than 15 turns per minute in a close helix of at least eight turns, around a cylindrical mandrel. The diameter of the mandrel shall be as shown in Table III. The wire surface of the helix shall be examined for compliance with the requirements of 3.6.6. Visual examination shall be made without optical magnification. Loosening or detachment during the adhesion test of superficial, small particles of zinc formed by mechanical polishing of the surface of the zinc-coated wire shall not be considered cause for rejection.

Table III. Mandrel diameter

	Mandrel diameters for coating shown				
Wire diameter, (inch)	Coating Regular or Class 1	Class 2	Class 3 or Class A	Class B	Class C
0.035 to under 0.075	1D	1D	2D	3D	3D
0.076 to under 0.148	1D	2D	3D	4D	4D
0.148 to 0.250, incl.	2D	2D	4D	4D	4D
Over 0.250	2D	2D	4D	5D	5D

D = Wire diameter

4.4.7 Weight of tin, zinc, or aluminum coating. One test specimen not less than 12 inches long shall be cut from each test sample. The computed weight of coating for each test specimen shall be not less than the minimum specified. The test for zinc or tin coating shall be conducted as specified in ASTM A90. (While the title indicates that the method is for zinc, the method can also be used for tin). The test for aluminum coating shall be conducted as specified in ASTM A428.

4.4.8 Zinc coating (hot dip). When a chemical analysis test is conducted in conjunction with the hot-dip (molten bath) process to determine compliance with 3.1.3, zinc samples shall contain not less than 98 percent pure zinc. As an alternate to analyzing the metal in the galvanizing kettle at the time the wire furnished to this specification is coated, the Government will accept certification from the producer that the coating metal used was of Prime Western or better chemical composition.

4.4.9 Dimensions. Sample units shall be selected in accordance with 4.3.2 for dimensional inspection. Each unit selected shall be gaged at three places, if accessible, one near each end and one near the middle. If not accessible, the wire from each unit shall be gaged by unreeling 12 feet from each unit and gaging in three places between 2 and 12 feet from the end. A unit shall be considered nonconforming if any measurement is not within specified limits, and shall be considered cause for rejection.

4.5 Inspection of preparation for delivery. The preservation, packaging, packing, and marking of the wire shall be examined to determine compliance with the requirements of section 5.

5. PREPARATION FOR DELIVERY

5.1 Preservation and packaging. Preservation and packaging shall be level A or commercial (level C), as required (see 6.2).

5.1.1 Level A. The wire shall be preserved and packaged in accordance with the applicable level A requirements of MIL-STD-163, with the following additional requirements.

5.1.1.1 Catchweight coils. Unless otherwise specified (see 6.2), the wire shall be delivered in catchweight (one piece) coils.

5.1.1.2 Exact-weight coils, spools, or reels. When exact-weight coils, spools, or reels are ordered, the inside and outside diameters of the coils, spools, or reels shall be specified (see 6.2), as required.

5.1.1.3 Other requirements. When specified (see 6.2), AISI Nos. 1006, 1008, and 1010 of annealed wire, 0.023 to 0.063 inch in diameter, inclusive, shall be furnished in 5- and 12-pound even-weight coils, or in 5-pound spools. Spools shall be paper-wrapped between flanges. Twelve-pound coils (stones) shall have a diameter of approximately 8 inches and unless otherwise specified (see 6.2), there shall be not more than two pieces per coil. Unless otherwise specified (see 6.2), 12-pound coils shall be packaged in barrels or fiber drums of 42 coils. Three 5-pound coils may be wrapped as a unit, at the supplier’s option.

5.1.2 Commercial (level C). The wire shall be preserved and packaged in a manner that will insure protection against, deterioration and damage during shipping.

5.2 Packing. Packing shall be level A or commercial (level C) as specified (see 6.2)

5.2.1 Level A. The wire shall be packed in accordance with the level A requirements of MIL-STD-163.

5.2.2 Commercial (level C). The wire shall be packed in a manner which will insure arrival at destination in satisfactory condition and which will be acceptable of the carrier at lowest rates. Packing shall comply with Uniform Freight Classification rules or National Motor Freight Classification rules.

5.3 Marking.

5.3.1 Civil agencies. In addition to any special marking specified in the contract or order, the wire shall be marked in accordance with Fed. Std. No. 123.

5.3.2 Military agencies. In addition to any special marking specified in the contract or order, the wire shall be marked in accordance with MIL-STD-163.

5.4 Palletization. When shipments to Government depots are full car or truckload, the packed containers shall be palletized using two-way entry, disposable wooden pallets for shipment and handling in accordance with normal commercial practice. The palletized load shall not exceed 2,500 pounds in weight, 63 inches in height, 56 inches in length, and 45 inches in width.

6. NOTES

6.1 Intended use. This specification covers the more generally available grades of carbon-steel wire for use where specific compositions and properties are desired for a definite purpose. It is not intended that this specification apply to items such as rope wire, armor wire, etc., which are covered by individual Federal Specifications.

6.2 Ordering data. Purchasers should select the preferred options herein and include the following information in procurement documents:

(a) Title, number, and date of this specification.
(b) Composition (see 1.2.1).
(c) Finish (see 1.2.2).
(d) Weight of zinc-coating, if required (see 1.2.2.1).
(e) Tensile strength designation (see 1.2.3).
(f) Size of wire (see 1.2.4).
(g) Steel making practice if not at the manufacturer’s option (see 3.2).
(h) Product analysis, if required (see 3.3.2).
(i) Finish required (see 3.6.1).
(j) Marking (see 3.8).
(k) Lot if different (see 4.2).
(l) Inspection and tests if different (see 4.4).

(m) Level of preservation and packaging and level of packing required (see 5.1 and 5.2).
(n) If wire is to be furnished in other than catchweight coils (see 5.1.1.1).
(o) Inside and outside diameter of coils, spools, and reels, when required (see 5.1.1.2).
(p) When annealed wire is to be furnished in 5- or 12-pound coils or in 5-pound spools (see 5.1.1.3).
(q) If wire furnished in 12-pound coils is to be packaged other than specified (see 5.1.1.3).

6.3 Information on end use of the wire shall be furnished, whenever possible, to help suppliers furnish material best suited for the intended purpose.

6.4 Hard wire in grades 1020, 1035, and 1045 as covered in this specification, refers to wire drawn to finished size from rods thermally treated, if required. Annealed wire refers to wire annealed at finished size and annealed-in-process refers to wire annealed during manufacturing operations. In the production of soft, medium, or hard tinned, aluminized, and zinc-coated wire, the heat treatment which determines the final strength is generally performed in conjunction with and as part of the galvanizing operation.

MILITARY CUSTODIANS:

Army - MR
Navy - YD
Air Force - 99

Review activities:

Army - MI, AT, AR

User activities:

Army - ME
Navy - MC

CIVIL AGENCY COORDINATING ACTIVITIES:

GSA - FSS
DC GOVT - DCG
HEW - NIH
JUSTICE - FPI
COMMERCE - NMF
USDA - AFS, SCS

Preparing activity:

Navy - YD

Project No. 9505-0080

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