

FED: SUP CLASS  
9505

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MATERIAL	NOMINAL WIRE DIAMETER							NOTES
	.015	.020	.031	.040	.047	.051	.091	
NI-CU ALLOY (MONEL)		NC20	NC32	NC40		NC51	NC91	(3)
NI-CR-FE ALLOY (INCONEL)		N20	N32	N40		N51	N91	(3)
CARBON STEEL ZINC-COATED		F20	F32	F41	F47		F91	
CORROSION-RESIST. STEEL	C15	C20	C32		C41	C47	C91	
ALUMINUM ALLOY (BLUE)		AB20	AB32		AB41	AB47	AB91	(3)
COPPER (YELLOW)		CY15	CY20					(3 & 4)

WIRE TOLERANCE SHALL BE IN ACCORDANCE WITH VALUES SPECIFIED IN THE APPLICABLE WIRE MATERIAL SPECIFICATION.

- MATERIAL. (DESIGNATED BY PREFIX LETTER REPLACING DASH BEFORE FIRST DASH NUMBER)
- F - CARBON STEEL, ZINC-COATED, SPECIFICATION QQ-W-481, ANSI NUMBERS 1006, 1010, OR 1015, ANNEALED.
  - C - CORROSION-RESISTANT STEEL, SPECIFICATION QQ-W-423, FORM 1, COMPOSITION 302 OR 304, CONDITION A.
  - N - NICKEL-CHROMIUM-IRON ALLOY, SPECIFICATION QQ-W-390, TEMPER A, ANNEALED.
  - NC - NICKEL-COPPER ALLOY, SPECIFICATION QQ-W-281, CLASS A, FORM 2, ANNEALED.
  - CY - COPPER, SPECIFICATION QQ-W-343, TYPE "S", ANNEALED, CADMIUM PLATED IN ACCORDANCE WITH QQ-P-416, TYPE II, CLASS 2 (GOLDEN YELLOW).
  - AB - ALUMINUM ALLOY WIRE 3036 ANODIZED, DYED BLUE IN ACCORDANCE WITH MIL-A-18275, TYPE 1 OR II, CLASS 2, COLOR EQUIVALENT TO NUMBERS 15102 OR 25102 IN ACCORDANCE WITH FED STD 595.

DASH NUMBERS INDICATE WIRE MATERIAL AND DIAMETER IN THOUSANDTHS OF AN INCH. ADDITIONAL DASH NUMBERS INDICATING LENGTH IN INCHES ARE FOR REFERENCE ONLY AND SHALL NOT BE USED FOR PROCUREMENT OR STOCKING.

WIRE SIZES .015 TO .041 INCH IN DIAMETER SHALL BE FURNISHED ON SPOOLS CONTAINING 1 TO 5 POUNDS EACH.

WIRE SIZE .047 TO .091 SHALL BE FURNISHED ON SPOOLS OR REELS CONTAINING 5 TO 10 POUNDS EACH.

- EXAMPLES OF PART NUMBERS
- MS 20995 CY20 - COPPER, CADMIUM PLATED, YELLOW, SHEAR OR SEAL WIRE, .020 DIA.
  - MS 20995 AB32 - ALUMINUM ALLOY, ANODIZED, BLUE, .032 DIA.

DIMENSIONS IN INCHES:

- DESIGN AND USAGE LIMITATIONS (NOTES):
- (1) FOR GENERAL PRACTICES FOR SAFETY WIRING, USE MS 33540.
  - (2) FOR LOCK WIRING OF TURNBUCKLES, USE MS 33591 AND MS 33736.
  - (3) INCONEL WIRE (UNCOATED) USE FOR GENERAL LOCK WIRE AT TEMPERATURES 700°F AND ABOVE. MONEL WIRE (UNCOATED) USE FOR GENERAL LOCK WIRE AT TEMPERATURES UP TO 700°F. COPPER (CY) WIRE USE FOR SHEAR OR SEALING WIRE, ALUMINUM ALLOY (AB) USE FOR LOCK WIRE WITH MAGNESIUM.
  - (4) CADMIUM PLATED COPPER IS NOT TO BE USED IN SPACE APPLICATIONS.

**F** ENTIRE STANDARD REVISED.

This military standard is approved by the Department of Defense and is mandatory on all activities. Subsequent to all new engineering and design applications and for replacement use shall be made from this document.

P.A. 84	TITLE	MILITARY STANDARD
Other Code AS 45	WIRE, SAFETY OR LOCK	MS 20995
MS		
PROUREMENT SPECIFICATION (NON)	SUPERSEDED AN995	SHEET 1 OF 2

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**SUPERSESION TABLE:**

MS 20995D PART NUMBER	MS 20995E SUPERSEDING PART NUMBER
CU20	CY20
AA20	AB20
A31	AB32 (OR AB31)
AA41	AB41
AA47	AB47
AA91	AB91
AA32	AB32

**INTERCHANGEABILITY RELATIONSHIP:**

FOR SAME DIAMETER AND LENGTH NI-CU ALLOY (MONEL) WIRE CAN BE SUBSTITUTED FOR CARBON STEEL AND CORROSION RESISTANT STEEL WIRE.

FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HEREIN.

REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT OF DATE OF INVITATIONS FOR BID.

LOCK WIRE TO COMPLY WITH THIS STANDARD SHALL BE OBTAINED FROM STOCK IN ACCORDANCE WITH THE SPECIFICATIONS AS APPLICABLE.

THIS DOCUMENT HAS BEEN PROMULGATED BY THE DEPARTMENT OF DEFENSE AS A MILITARY STANDARD TO LIMIT THE SELECTION OF THE ITEM, PRODUCT, OR DESIGN COVERED HERE IN ENGINEERING, DESIGN, AND PROCUREMENT. THIS STANDARD SHALL BECOME EFFECTIVE NOT LATER THAN 90 DAYS AFTER THE LATEST DATE OF APPROVAL SHOWN.

\* THESE ALLOYS ARE TO BE USED AS SAFETY WIRE.

\*\* TO BE USED AS SAFETY WIRE OR LOCK WIRE ACCORDING TO NOTE (3).

ⓔ ENTIRE STANDARD REVISED.

17 Sep 74

REVISED ⓔ

APPROVED 3 JAN 57

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This military standard is approved by the Department of Defense and is mandatory on all activities. Selection for all new engineering and design applications and for replacement shall be made from this document.

P.A. Other Code	84 AS MU	TITLE WIRE, SAFETY OR LOCK	MILITARY STANDARD <b>MS20995</b>
PROCUREMENT SPECIFICATION NONE	SUPERSEDES: AN 995	SHEET 2 OF 2	