

**AEROSPACE
MATERIAL
SPECIFICATION**



AMS-W-21425B

Issued	JAN 1999
Noncurrent	OCT 2003
Cancelled	FEB 2005

Superseded by MIL-W-21425

Wire, Steel, High Carbon, Square,
Uncoated, For Mechanical Springs
(General Purpose)

CANCELLATION NOTICE

This specification has been declared "CANCELLED" by the Aerospace Materials Division, SAE, as of February, 2005, and has been superseded by MIL-W-21425. The requirements of the latest issue of MIL-W-21425 shall be fulfilled whenever reference is made to the cancelled AMS-W-21425. By this action, this document will remain listed in the Numerical Section of the Index of Aerospace Material Specifications, noting that it has been superseded by MIL-W-21425.

Cancelled specifications are available from SAE.

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NONCURRENCY NOTICE

This specification has been declared "NONCURRENT" by the Aerospace Materials Division, SAE, as of October, 2003. It is recommended, therefore, that this specification not be specified for new designs.

"NONCURRENT" refers to those specifications which have previously been widely used and which may be required on some existing designs in the future. The Aerospace Materials Division, however, does not recommend these specifications for future use in new designs. "NONCURRENT" specifications are available from SAE upon request.

NOTICE

This document has been taken directly from U.S. Military Specification MIL-W-21425B and contains only minor editorial and format changes required to bring it into conformance with the publishing requirements of SAE technical standards. The initial release of this document is intended to replace MIL-W-21425B. Any part numbers established by the original specification remain unchanged.

The original Military Specification was adopted as an SAE standard under the provisions of the SAE Technical Standards Board (TSB) Rules and Regulations (TSB 001) pertaining to accelerated adoption of government specifications and standards. TSB rules provide for (a) the publication of portions of unrevised government specifications and standards without consensus voting at the SAE Committee level, and (b) the use of the existing government specification or standard format.

Under Department of Defense policies and procedures, any qualification requirements and associated qualified products lists are mandatory for DOD contracts. Any requirement relating to qualified products lists (QPL's) has not been adopted by SAE and is not part of this SAE technical document.

1. SCOPE:

1.1 Scope:

This specification covers three types of uncoated, square (0.050 to 0.500 inches in width), high-carbon steel wire (see 6.1).

1.2 Classification:

Wire shall be of the following types, as specified (see 6.2):

Type I Oil tempered spring wire for the manufacture of springs which require no subsequent hardening.

Type II Hard drawn wire for the manufacture of springs which require no subsequent hardening.

Type III¹ Soft (0.55 to 0.75 carbon) wire for the manufacture of springs which are to be hardened after cold forming, furnished in two conditions as follows (see 6.1.3):

Condition A - Annealed at finished size

Condition B - Annealed and lightly drawn.

2. APPLICABLE DOCUMENTS:

The following publications, 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.

2.1 U.S. Government Publications:

Available from DODSSP, Subscription Services Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

FED-STD-66 Steel; Chemical Composition and Hardenability
FED-STD-151 Metals; Test Methods

MIL-STD-129 Marking for Shipment and Storage
MIL-STD-163 Steel Mill Products, Preparation for Shipment and Storage

2.2 ASTM Publications:

Available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

ASTM A 318 Tension Testing of Steel Spring Wire

1. If a condition letter is not specified for type III wire, either condition A or condition B may be selected at the option of the spring manufacturer.