
	Material Specification		
	NUMBER AX-141	REV A	SHEET 1 of 3

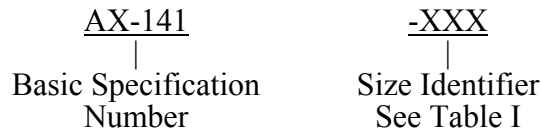
EDTITLE: Solder, Wire, Tin-Lead, Alloy Sn 50, UNS L55031	WRITTEN BY: W.M.B. 09/11/02
	ENG APPROVAL: W.M.B. 03/10/05
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<u>Revision</u>	<u>Description</u>	<u>Date</u>	<u>Approved</u>
-	Release to Production	03/10/05	W.M.B
A	ECN-H298 Rewrote Specification; Deleted Alloy Sn 97Sn/3Ag & Added Alloy Sn 50	9/1/05	F.R.L.

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1. SCOPE.

- 1.1 Scope. This specification defines the requirements for solder wire for use in the production of strip wound conduit and outer conductor.
- 1.2 Classification. Part Numbers under this specification are coded as follows:



2. APPLICABLE DOCUMENTS.

Federal Specifications:

QQ-S-571 Solder, Tin Alloy: Tin-Lead Alloy; and Lead Alloy

American Society for Testing and Materials:

ASTM B32

3. REQUIREMENTS.

Material shall be Sn50 solder per QQ-S-571, ASTM B32 and UNS L55031 and as specified herein.

3.1 Chemical Analysis Requirements:

The alloys listed are considered to be the component elements of the alloy. All other elements are to be considered as impurities and their maximum percentages by weight shall not exceed the values as specified in QQ-S-571 or ASTM B32.

<u>Element</u>	<u>QQ-S-571</u>	<u>ASTM B32</u>
Alloy Name	Sn50Pb50	Sn50
Tin (Sn)	49.5-51.5%	49.5-51.5%
Lead (Pb)	Reminder (50%)	Reminder (50%)


3.2 Physical Properties:

TABLE I

Size Identifier	Diameter
-011	Ø.011 +.00075/-.00025
-013	Ø.013 +.00075/-.00025
-020	Ø.020 +.00075/-.00025

3.3 Flux:

Unless otherwise specified, wire solder shall be supplied with a 2.2%, Type RA rosin core (equivalent to Kester 44 Resin).

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3.4 Material Workmanship:

Solder to be smooth, cylindrical, free from surface impurities except the addition of external segments of non-corrosive flux. Rosin cored solder shall have no external impurities. Solder shall be wound without kinks.

4. QUALITY ASSURANCE PROVISIONS.

4.1 Quality Assurance shall be responsible for inspection of material upon receipt of each lot for conformance to this specification, or unless otherwise specified by any requirements stated on the lot's specific purchase order.

5. PREPARATION FOR DELIVERY.

5.1 Spooling Requirements:

Solder shall be supplied in continuous, unspliced lengths on spools having 3/4" Bore Dia., 3-1/2" Flange Dia., 1" nom. Barrel Dia., and 3" Traverse. Material weight shall be 3.0-4.5 lbs. per spool. Spools with a material weight of 1.0-3.0 lbs. will be accepted provided they do not constitute more than 20% of the net weight of any single shipment. Spools shall be wound as to insure that solder wire may be unwound without binding.

5.2 Packing and Marking:

Packing shall be adequate to protect the spools and wire from contamination and physical damage during shipment. Each spool shall be plainly marked with material identification, wire diameter, shipping date, weight and name of manufacturer

5.3 Certification:

Certificate of Compliance, mechanical properties and chemical analysis must accompany each shipment.

6. NOTES.

6.1 Ordering Information: Purchase orders should specify the following:

- a. Part Number including size identifier (see 1.2)
- b. Description
- c. Quantity, total poundage.
- d. Spool Size (see 5.1)
- e. Delivery Date