

# TIN/LEAD AND LEAD-FREE SOLDERS...

## for the Electronics & Printed Circuit Industry

### NATHAN TROTTER BAR SOLDER



#### GENERAL DESCRIPTION

Nathan Trotter & Co., Inc. is a manufacturer and producer of bar solder for use in electronic assembly and Hot Air Leveling applications. NT Solder Bar comes in both traditional tin/lead alloys and ROHS compliant, Lead-Free solders. Only high purity virgin metals are used in NT SOLDER BAR including virgin Grade A Tin with 99.9% min. purity, Copper of 99.99%, Nickel with 99.99%, and Lead with 99.99% purity. The alloys are manufactured to exceed the purity requirements outlined in the IPC J-STD-006 and ASTM B32-08 standard as well as other relevant international standards. Note: All NT Solder also comes in anode form for electroplating.

#### QUALITY ASSURANCE

Consistent purity levels and strict adherence to our customers' product specifications are among our top priorities. We have our own in-house analytical capability and provide a certificate of analysis with each one of our shipments. Nathan Trotter has been ISO 9001:2008 registered since 1997.

NT Solder Bar has demonstrated success and compatibility in Hot-Air Leveling, Reflow, and Wave Soldering processes and machinery manufactured by **Avalon, Penta, Teledyne Halco, Cemco, Gyrex, and Lantronic, Electrovert, Dover, Specnor, Teamco, Mancorps, Koki**

#### FEATURES

- Bright and shiny surface appearance
- High Fluidity and Solderability
- Minimal oxidation, which results in higher yields, increased productivity, and lower reject rates

#### LEAD TIME & DELIVERY

Substantial inventories of standard bar solder alloys are kept in stock at our facility in Coatesville, PA in order to provide typical next day shipping to customers

#### COMPLIMENTARY SOLDER POT ANALYSIS

Nathan Trotter offers a complimentary Solder Pot analysis using state-of-the-art analytical equipment on the premises.

#### TYPICAL ANALYSIS OF NT SOLDER ALLOYS

ELEMENT	TRADITIONAL 63Sn/37Pb	LEAD-FREE (Sn99)	SAC 305 LEAD-FREE
Tin- Sn	Balance	99.92 +/- 0.30	96.50 +/- 0.30
Copper- Cu	<0.001	>0.800	0.500 +/- 0.30
Silver- Ag	<0.001	<0.001	3.00 +/- 3.00
Nickel- Ni	<0.001	<0.030	<0.001
Lead- Pb	37.0 +/- 0.30	<0.020	<0.020
Antimony- Sb	<0.030	<0.030	<0.030
Bismuth- Bi	<0.005	<0.005	<0.005
Iron- Fe	<0.002	<0.002	<0.002
Zinc- Zn	<0.001	<0.001	<0.001
Aluminum- Al	<0.001	<0.001	<0.001
Arsenic- As	<0.001	<0.001	<0.001
Cadmium- Cd	<0.001	<0.001	<0.001
Indium- In	<0.001	<0.001	<0.001

#### PHYSICAL PROPERTIES OF VARIOUS SOLDERS

PROPERTIES	TRADITIONAL 63Sn/37Pb	LEAD-FREE (Sn99)	SAC 305 LEAD-FREE
Melting Point	183 °C	227 °C	217 °C
Operating Temp	245 °C	255 °C	265 °C
Density	8.40 g/cu <sup>3</sup>	7.31 g/cu <sup>3</sup>	7.40 g/cu <sup>3</sup>

#### PACKAGING

- 1, 5 lb, or 1kg bars packed in 50 lb boxes, 250, 500 lb drums
- Bars stamped with lot number or other requested identification
- Custom size bars and packaging are available upon request
- Certificate of Analysis provided with each shipment

#### NT CAN RECYCLE YOUR SOLDER SCRAP

Nathan Trotter offers a buy-back schedule which enables our customers to sell back your solder dross & scrap. We offer our customers fair and reasonable market values in addition to prompt settlements or credits.

**NATHAN TROTTER IS ISO 9001 : 2008 REGISTERED**

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**Nathan Trotter & Co.**  
Non-Ferrous Metals

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