



CORPORATE PURCHASING SPECIFICATION

AA128 01

Rev No 02

PREFACE SHEET

HIGH PURITY TIN INGOTS - Gr: Sn 99.85

FOR INTERNAL USE ONLY
REMOVE THIS PREFACE BEFORE ISSUE TO SUPPLIERS

Comparable Standards:

1. INDIAN : IS:26-1992, Grade Sn 99.85

Suggested / Probable Suppliers and Grades :

1. M/s. Minerals and Metals Trading Corporation, DELHI.

User Plant References:

1. BHOPAL : P.S. 12808
2. HYDERABAD : IS: 26-1966, Grade Sn 99.85
3. CFFP, HARDWAR : IS : 26-1966, Grade Sn 99.85
4. HEEP, HARDWAR : IS : 26-1966, Grade Sn 99.85

Revisions:

Cl: 19.9.19 of MOM of MRC-FN

APPROVED:

INTERPLANT MATERIAL RATIONALISATION
COMMITTEE-MRC (FN)

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HIGH PURITY TIN INGOTS - Gr:Sn 99.85					
<p>1.0 GENERAL: This specification governs the quality requirements of High Purity Tin Ingots of grade Sn. 99.85</p>					
<p>2.0 APPLICATION: Used for alloying additions in copper based alloys in foundries, manufacturing of solders and tin based babbits and soldering of retaining bands of armatures and rotors.</p>					
<p>3.0 CONDITION OF DELIVERY: As cast.</p>					
<p>4.0 COMPLIANCE WITH NATIONAL STANDARD: The material shall comply, in general with the requirements of the following national standard and also meet the requirements of this specification. IS : 26 -1992, Gr: Sn 99.85 : Tin Ingot.</p>					
<p>5.0 SIZE AND SHAPE: The master alloy shall be in the form of ingots weighing not more than 40 kg each.</p>					
<p>6.0 MANUFACTURE: Tin shall be produced from the ore by any approved process of smelting and refining.</p>					
<p>7.0 FREEDOM FROM DEFECTS: The ingots shall be free from dross, slag and other foreign inclusions and defects and shall have a clean surface.</p>					
<p>8.0 TEST SAMPLES: Unless otherwise agreed, one ingot shall be selected from each consignment of 1000 kg or part thereof representing one heat of the metal produced under uniform conditions of manufacture and offered for tests at one time. The method of preparing samples for chemical analysis shall be in accordance with IS: 1817.</p>					
Revisions: Cl: 19.9.19 of MOM of MRC-FN			APPROVED: INTERPLANT MATERIAL RATIONALISATION COMMITTEE-MRC (FN)		
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9.0 CHEMICAL COMPOSITION:

The chemical composition of the material, when analysed in accordance with IS: 1940-Method of Chemical Analysis of Tin Ingots, shall have the following composition.

<u>Element</u>	Percent	
	Min.	Max.
Tin	99.85	
* Lead	-	0.04
* Antimony	-	0.04
* Bismuth	-	0.04
* Copper	-	0.04
* Arsenic	-	0.04
* Iron	-	0.01
* Total Impurities (including lead, antimony, bismuth, copper, arsenic and iron)	-	0.15 _

*

* These elements need not be determined. However, the supplier shall ensure that the composition of the material lies within the limits specified above.

10.0 INSPECTION AT SUPPLIER'S WORKS:

Whenever specified, tests and inspection are to be conducted in the presence of BHEL's representative.

The supplier shall offer BHEL's representative all reasonable facilities, without charge to satisfy the latter that the material is being furnished in accordance with this specification. The supplier shall prepare and provide necessary test specimens for testing to be carried out at his premises. If facilities are not available at his works, the supplier shall make necessary arrangements for carrying out the prescribed tests elsewhere. The supplier shall notify BHEL in advance about the readiness of the material for inspection and testing. BHEL reserves the right to test the material at BHEL's work and the final acceptance of the material shall be based on these test results.

11.0 TEST CERTIFICATES:

Unless and otherwise stated, three copies of certificates shall be supplied along with each consignment giving the following information.

In addition the supplier shall ensure to enclose one copy of test certificate along with their dispatch documents to facilitate quick clearance of the material.

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BHEL order no.

Manufacturer's / supplier's name.

Heat No.

Consignment / Identification No.

Test results of clause 9.0.



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12.0 PACKING AND MARKING:

The material shall be packed in air tight, moisture proof steel drums of 50 kg each. Each container shall be legibly marked or labelled with the following information.

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BHEL Order No.

Manufacturer's / supplier's name.

Melt No.

Consignment / Identification No.

Quantity supplied

13.0 REJECTION AND REPLACEMENT:

If the material does not comply with the requirements of this specification during receipt inspection at BHEL or if any defect is found during further processing of the material, BHEL reserves the right to reject the whole consignment notwithstanding any previous certification of satisfactory testing and / or inspection. The supplier shall undertake to replace the rejected material at his own cost and the rejected material shall be taken back by the supplier after fulfilling the commercial terms and conditions.

14.0 REFERRED STANDARDS (Latest Publications Including Amendments):

1) IS:26

2) IS : 1817

3) IS: 1940