



TD-219-Rev.00

# PLANT PURCHASING SPECIFICATION

HY 11366

REV.No. 00

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## MAGNESIUM INGOTS FOR REMELTING

### 1.0 GENERAL:

This specification covers the requirements of magnesium ingots of 99.8% purity used for remelting purpose in non-ferrous foundry.

### 2.0 APPLICATION:

Used as an alloying element in aluminium based casting alloys.

### 3.0 APPLICABLE NATIONAL/INTERNATIONAL STANDARDS:

The material supplied shall conform to the requirements of this specification and also comply in general with IS:6694-1981 (Reaffirmed 1991) "Specification for magnesium ingots for remelting".

### 4.0 SHAPE AND SIZE:

The material shall be supplied in the form of small pieces or ingots weighing not more than 2.5 kg.

### 5.0 MANUFACTURE:

No scrap shall be used in the production of ingots except that which has been accumulated at the Unit during the process of manufacture of material of similar composition.

### 6.0 FREEDOM FROM DEFECTS:

The ingots shall have a clean surface and shall be reasonably free from flux, dirt, slag and other foreign matter.

### 7.0 CHEMICAL COMPOSITION:

The material when analysed shall have the following composition.

Copper, max	0.02
Lead, max	0.01
Manganese, max	0.15
Nickel, max	0.001
Tin, max	0.01
Other impurities each, max	0.05
Magnesium, min	99.80

### 8.0 CORROSION PREVENTION:

In order to inhibit any possible corrosion during transport and storage, chromate treatment shall be given to the ingots.

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**9.0 SAMPLING FOR CHEMICAL ANALYSIS:**

Atleast one sample shall be selected at random for every 2000kg or part thereof of each cast which shall constitute a lot.

**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.

**11.0 TEST CERTIFICATES:**

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

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

HY 11366 : Pure Magnesium Ingot  
 BHEL Order No.  
 Manufacturer's/Supplier's Name  
 Melt No.  
 Quantity Supplied  
 Test results of clauses 4 and 7

**12.0 PACKING AND MARKING:**

The material shall be packed in closed wooden box with waterproof bitumen paper to prevent damage in ordinary handling and transportation. Each container or package shall be legibly marked or labeled with the following information.

HY 11366 : Pure Magnesium Ingot  
 BHEL Order No.  
 Manufacturer's/Supplier's Name  
 Melt No.  
 Net weight

**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:**

**IS : 6694**