

**GOVERNMENT OF INDIA  
MINISTRY OF DEFENCE  
DEFENCE R&D ORGANISATION  
CENTRE FOR MILITARY AIRWORTHINESS & CERTIFICATION  
MARATHAHALLI COLONY P.O  
BANGALORE - 560 037**

**TYPE APPROVAL NO : 766**

**ISSUED TO** : M/S MISHRA DHATU NIGAM LTD.,  
P.O. KANCHANBAGH  
HYDERABAD - 500 058.

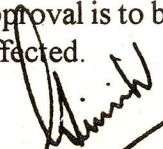
**FOR** : **MAGNESIUM ALLOY ZM21A  
HOT ROLLED PLATES**

**CO-ORDINATED BY** : RCMA(MATERIALS), HYDERABAD.

This is to certify that Magnesium Alloy ZM21A Hot Rolled Plates to specification DTD-5091 manufactured by M/s Mishra Dhatu Nigam Ltd., P.O. Kanchanbagh, Hyderabad - 500 058, coordinated by RCMA (Materials) of CEMILAC, has met all the requirements specified in test schedule No.CRE(M)/39 dt.31-May-95. Hot rolled plates were manufactured from cast blocks supplied by M/s Super Inducto Castings (Pvt) Ltd, Hyderabad. These plates are cleared for use in missile applications.

2. The components manufactured from these plates may require separate endurance testing based on their functional requirements/end use.
3. This approval is contingent upon :
  - i) Composition, being as per Annexure-II & processing parameters being as detailed in Annexure-IV & VI of the type test record vide report No.MDN/TD/ZM21A/02, dt.28 Dec 1995.
  - ii) Batches from series production confirming to the requirements laid down in Specification No.DTD-5091.
  - iii) The quality control aspects of bulk production being cleared by DTD&(Air), Ministry of Defence, Govt. of India.
  - iv) Compliance to repeat type approval tests should be carried out as called for by CEMILAC whenever sufficient reasons warrant.
4. The Type Approval Serial No. quoted above must be reflected in all relevant drawings, Contracts and release notes.
5. This Approval is valid for a period of Three Years upto 30th June 1999 and will have to be renewed subsequently.
6. Prior approval of this office will have to be obtained if this approval is to be transferred to any other agency or if changes within the Type Record enclosed are effected.

Encl : Appendix 'A'  
No. : CEMILAC/5070/TA-766  
Date : 12 June 1996

  
(K. SRINIVASA)  
Chief Executive(Airworthiness)