

TECHNICAL DATA SHEET FOR ANTIPIPING EXOTHERMIC CUM INSULATING POWDER FOR ALUMINUM CASTING

Ref No.:/HY/F&P/Tech/TDS/17-18/01

Date:14.03.18

1.0 GENERAL:

This data sheet governs the quality requirements of Exothermic, Insulating powder for use in the risers of aluminum castings.

2.0 APPLICATION:

The main purpose is to minimize the heat losses from the top surface and to retain more metal in the liquid state by preventing premature freezing of the riser surface.

3.0 SHAPE AND SIZE:

The material shall be supplied in dry powder form, free from lumps etc.

4.0 TEST SAMPLES:

Representative samples shall be drawn as per mutual agreement between the supplier and BHEL.

5.0 PROPERTIES:

The material shall comply with the following properties: -

i)	Ignition time (start of burn or glow)	When added it should ignite within 30-60 seconds on contact with molten metal
ii)	On completion of burning	At completion it should form an insulating cover on the top surface of the riser. The combined effect of both exothermic reaction and insulating cover results in improved feeding efficiency

6.0 INSPECTION AT SUPPLIER'S WORKS:

6.1 BHEL reserves the right to witness the testing of the material at supplier works and therefore the supplier shall notify the readiness of the material in advance.

6.2 BHEL may also opt for third party inspection. If so, BHEL may either specify a third party or else give a list of third party inspection agencies, out of which supplier may select one of his choice.

6.3 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.

6.4 BHEL may, at its discretion, test the material after receipt and acceptance of the material will be based on the BHEL's test results.

6.5 Supplier shall ensure that the material is free from extraneous material. The material shall be rejected if it is not free from extraneous material.

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6.6 For result of analysis and properties of material the decision of BHEL shall be final and binding on the supplier.

6.7 If the material received is not found suitable according to the requirements, it shall be replaced free of cost by the supplier.

6.8 For any deviation, demanded by the supplier from the specification, prior approval of BHEL must be obtained.

7.0 TEST CERTIFICATES:

Unless and otherwise stated, one original and three copies of certificates from the original manufacturer shall be supplied along with each consignment.

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

Manufacturer supplying material directly to BHEL should include BHEL PO No. in the Test Certificate. Any other supplier should provide a covering letter along with original manufacturer Test Certificate as above mentioning BHEL PO No.

The test certificates shall bear the followings information:

ANTIPIPING EXOTHERMIC CUM INSULATING POWDER FOR ALUMINUM CASTING

BHEL Order No.

Manufacturer's/ Supplier's Name.

Trade mark, if any

Batch / Lot No.

Quantity Supplied

Test results as per clause 6.0, if any

8.0 PACKING AND MARKING:

Material shall suitably be packed in 20 Kg HDPE bags and shall mention-

ANTIPIPING EXOTHERMIC CUM INSULATING POWDER FOR ALUMINUM CASTING

BHEL Order No.

Manufacturer's/ Supplier's Name and Trade mark, if any.

Batch / Lot No.

Quantity Supplied

9.0 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.

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