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# PLANT PURCHASE SPECIFICATION (CFFP - HARDWAR)

FF 05030 Rev02

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## BURNT LIME

### 1.0 GENERAL:

This specification governs the quality of Burnt Lime for use in steel melting and refining operations.

### 2.0 APPLICATION

The material is to be used as flux for steel melting in Electric Arc Furnaces and refining in VAD, VOD & LRF operations.

### 3.0 COMPLIANCE WITH NATIONAL STANDARD

No national standard exists for burnt lime used in steel melting and refining operations.

### 4.0 SIZE

The material should be supplied in the form of lumps in the size range of 20 to 60 mm. 90% of the material should fall in this range.

### 5.0 TECHNICAL

#### 5.1 CHEMICAL PROPERTIES

Burnt Lime should conform to the following chemical requirements :

ELEMENTS	% MIN.	% MAX.
CaO	89.00	.....
MgO	-----	3.00
SiO <sub>2</sub>	-----	2.00
Sulphur	-----	0.05
Phosphorous	-----	0.05
Fe <sub>2</sub> O <sub>3</sub> & Al <sub>2</sub> O <sub>3</sub>	-----	2.00
H <sub>2</sub> O	-----	2.00

#### 5.2 LOI (loss on Ignition) :

The loss on ignition should not be more than 6%. LOI should be calculated as per IS 1514.

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		DATE	05/12/09



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5.3 Burnt lime is hygroscopic and on exposure to atmosphere absorbs moisture. With long exposure it becomes powder and loses its reactivity. Hence packing and storage are of utmost importance for retaining its properties over a long period of time. Packing has been adequately addressed at clause no 9.0.

## 6.0 SAMPLING AND METHOD FOR CHEMICAL ANALYSIS:

The sampling and chemical analysis should be done as per IS 1514. All the test result of Chemical analysis and LOI to be rounded off as per IS 2-1960.

## 7. INSPECTION

- CFFP 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.
- CFFP may, at its discretion, test the material after receipt and acceptance of the material will be based on the CFFP's test results.
- For any deviation from this specification prior approval shall be taken by the supplier.
- For result of analysis and properties of material the decision of CFFP shall be final and binding on the supplier.
- If the material is not conforming to this specification, it is liable to be rejected and the supplier shall replace the same.

## 8. TEST CERTIFICATES

One Original and three copies of Test Certificate from the manufacturer containing the following information should be provided.

Manufacturer's Name  
Name of the material  
Batch/Lot No.  
Quantity.

Note:

- A manufacturer supplying directly to BHEL should include BHEL's P.O. No. and Challan No. also in the TC.
- Any other supplier should provide a covering letter along with Manufacturer's TC as above mentioning BHEL's P.O. No. and Challan No.

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## 9. PACKING AND MARKING

The material should be packed in air tight and moisture proof polythene lined bags with Net Weight up to 35 Kg. The packing should be strong enough to withstand the rigors of loading/unloading. The packing should be good enough so that material should not gain moisture during storage. The bags should be properly stitched/sealed so that the material is not exposed to atmosphere till opened for usage.

Each bag should be identified with:

- Manufacturer's Name
- Material Name
- Batch/Lot No.
- Quantity.

Identification in any manner (Eg: - Stencil marking, Tags, Stickers etc.) is acceptable

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### REVISION RECORD SHEET

SN	Revision No.	Revision date	Nature of Changes
01.	01	11.04.2008	- Specification redrawn
02.	02	05.12.2009	<ul style="list-style-type: none"> <li>- Rounding off of the test result has been incorporated.</li> <li>- Clause no 4 modified. Size changed to 20-60 mm from 50-60 mm.</li> <li>- New clause no 5.2 incorporated for Loss of ignition.</li> <li>-SiO<sub>2</sub> has been reduced from 4.00% to 2.00% in clause no 5.1</li> <li>-Moisture content reduced from 3.5% to 2.0%.</li> </ul>

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