(92% CaO) BURNT LIME WITH REACTIVITY TEST.

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 10 to 25 mm. 95% 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	92.00	…….
MgO	-------	2.00
SiO_2	--------	2.00
Sulphur	---------	0.15
Fe_2O_3 & Al_2O_3	---------	2.00

5.2 LOI (loss on Ignition) :

The loss on ignition should not be more than 4%. LOI should be calculated as per IS 1514.

5.3 Reactivity test: In accordance with **ASTM C 110.**

Temperature rise →Minimum 29 °C within 2 minutes.

Time for completion of reaction → 10 minutes or less.

RMI	ARUN AGARWAL		WORKED BY	M.K.SAHU	
MPIC	ROHIT VARSHNEY		CHECKED BY	B K BEDI	
CHAIRMAN CPSC	V K AGARWAL		SUPERVISED BY	P.K ROY	
			APPROVED : PLANT STANDARDS COMMITTEE		
			PREPARED : SMS TECH	ISSUED : Steel Melting Shop	DATE :

5.4. 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 10.0.

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.

7.0 INSPECTION

- CFFP reserves the right to witness the testing of the material at supplier works.
- 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.

8.0 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) A manufacturer supplying directly to BHEL should include BHEL's P.O. No. and Challan No. also in the TC.
b) Any other supplier should provide a covering letter along with Manufacturer's TC as above mentioning BHEL's P.O. No. and Challan number with linkage to manufacture's TC/Batch no.

9.0 PACKING AND MARKING:

The material should be packed in moisture proof polythene lined bags (double lined) with net weight in the range from 25 kg 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

REVISION RECORD SHEET

SN	Revision No.	Revision date	Nature of Changes

ISSUED BY:	SMS		WORKED	M.K.SAHU
REVISION	00	DATE:	CHECKED	B K BEDI