



# CORPORATE PURCHASING SPECIFICATION

AA53620

Rev No.02

PREFACE SHEET

## CALCIUM SILICIDE

FOR INTERNAL USE ONLY

REMOVE THIS PREFACE BEFORE ISSUE TO SUPPLIERS

### Equivalent / Comparable Standards

1) INDIAN : IS: 2022-1997

### Suggested / Probable Suppliers and Grades

As per respective Plant's PMD

### User Plant References:

1) BHOPAL : --

2) BANGALORE : --

3) CFFP, HARIDWAR : FF05063

4) HYDERABAD : --

Revisions:  
Clause No. 25.03 of MOM of MRC-FN

**APPROVED:**  
INTERPLANT MATERIAL RATIONALISATION  
COMMITTEE – MRC(FN)

Rev No.02	Amd No.	Reaffirmed	Prepared	Issued	Dt. of 1 <sup>st</sup> Issue
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## CALCIUM SILICIDE

### 1.0 GENERAL:

This specification governs the requirements of Calcium Silicide for use in iron and steel melting.

### 2.0 APPLICATION:

Used as a ladle additive for deoxidation and grain refinement of iron and steel melts.

### 3.0 COMPLIANCE WITH NATIONAL STANDARDS:

The material shall comply, in general, with the requirements of the following national standard and also comply with the requirements of this specification.

IS: 2022-1997: Calcium Silicon

### 4.0 SIZE

The material shall be supplied in granular form as per size and distribution given below:

Below 2.0 mm	:	10% maximum
2.0 to 20.0 mm	:	80% maximum
Above 20.0 mm	:	10% maximum

### 5.0 FREEDOM FROM DEFECTS:

The material shall be free from slags and non-metallic residues.

### 6.0 TEST SAMPLE:

Composite sample shall be prepared from each consignment of 1000 kg or part thereof.

### 7.0 CHEMICAL COMPOSITION:

The material when analysed in accordance with IS: 2018 shall show the following composition:

Constituents	%, minimum	%, maximum
Silicon	60	65
Calcium	30	35
Carbon	--	1.0
Iron*	--	4.0
Sulphur*	--	0.03
Phosphorous*	--	0.05
Aluminium*	--	1.50

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\*These elements need not be determined at BHEL's works. However, the manufacturer shall ensure that the composition of the material lies within the limits specified above.

## 8.0 INSPECTION, DEVIATION AND REPLACEMENT:

- 8.1 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.
- 8.2 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.
- 8.3 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.
- 8.4 BHEL may, at its discretion, test the material after receipt and acceptance of the material will be based on the BHEL's test results.
- 8.5 Supplier shall ensure that the material is free from extraneous material. The material shall be rejected if it is not free from extraneous material.
- 8.6 For result of analysis and properties of material the decision of BHEL shall be final and binding on the supplier.
- 8.7 If the material received is not found suitable according to the requirements, it shall be replaced free of cost by the supplier.
- 8.8 For any deviation, demanded by the supplier from the specification, prior approval of BHEL must be obtained.

## 9.0 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 despatch 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:

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BHEL Order No.

Manufacturer's/ Supplier's Name.

Batch No. and date of manufacture.

Quantity supplied

Test results of clauses 4.0 and 7.0



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## 10.0 PACKING AND MARKING:

The material shall be supplied in clean, moisture and tamper proof steel drums of 100 kg each. Original Manufacturer packing is acceptable. Each drum shall be legibly marked or labeled with the following information:

AA53620: CALCIUM SILICIDE

BHEL Order No.

Manufacturer's/ Supplier's Name.

Batch/ Lot No and date of manufacture.

Net weight

## 11.0 Referred Standards (Latest Publications including Amendments):

- 1) IS: 2018