



# PLANT PURCHASE SPECIFICATION

(CFFP - HARDWARE)

FF05074 Rev:00

Page 1 of 2

## CORED SILICO CALCIUM WIRE FOR WIRE FEEDER

### 1. SCOPE

This specification governs the quality of CaSi cored wire used in Secondary refining process VAD & LRF in Steel Melting Shop.

### 2. APPLICATION

The material shall be used to feed into liquid metal in VAD Ladle through wire feeder machine at VAD /LRF station.

### 3. COMPLIANCE WITH NATIONAL STANDARDS

No national standard is available for this specification.

### 4. TECHNICAL PARAMETERS

| PARAMETER                       | REQUIREMENT            |
|---------------------------------|------------------------|
| Calcium                         | 30% Min.               |
| Silicon                         | 55% Min.               |
| Sulphur                         | 0.05% Max              |
| Phosphorous                     | 0.05% Max              |
| Diameter of cored wire          | 13±1 mm                |
| CaSi Powder Density             | 250 Gm/Mtr ± 25Gm/Mtr  |
| Type of shielding material      | Cold rolled M.S. Strip |
| Thickness of shielding material | 0.30-0.40 mm           |

### 5. CONDITION OF DELIVERY:

CaSi powder shall be encapsulated in cold rolled M.S. strip and shaped into cored wire. Cored wire CaSi shall be of such strength and ductility that it holds the cored CaSi powder efficiently without any leakage due to rupture and is conveniently used in wire feeding machine without any problem.

### 6. TESTING CRITERIA:

- Chemical Composition
- Diameter of cored wire
- Powder density of cored wire in Gm/Mtr

|                                      |                 |                             |                  |
|--------------------------------------|-----------------|-----------------------------|------------------|
| RMI                                  | SOMNATH GHOSH   | Worked by                   | MANOJ KUMAR SAHU |
| MPIC                                 | ANURAG KUSHWAHA | Checked by                  | SUNIL KUMAR      |
| CHAIRMAN<br>PPSC                     | V.K. AGARWAL    | Supervised by               | P.K.ROY          |
| APPROVED : PLANT STANDARDS COMMITTEE |                 |                             |                  |
| PREPARED : SMS TECH                  |                 | ISSUED : Steel Melting Shop | DATE             |



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Page 2 of 2

## 7. SHOP TRIAL

- Suitability of feeding in wire feeding machine by using in shop's wire feeding machine.  
Cored wire CaSi shall be of such strength and ductility that it holds the cored CaSi powder efficiently without rupture and is conveniently used in wire feeding machine without any problem IN CONTINUOUS FEEDING..

## 8. INSPECTION

- CFFP reserves the right to witness/third party inspection for the testing of the material at supplier's works and therefore the supplier shall notify his readiness for inspection of Cored wire 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.
- MATERIAL SHALL BE ACCEPTED BASED ON CLAUSE 6 AND 7

## 9. PACKING:

Cored wire shall be made as a coil in steel cages covered with plastic.  
Coil shall be fixed with a detailed sticker clearly displaying details of coil no, powder density per meter, diameter of cored wire, strip weight, gross weight, total wire length and the shelf life.

## 10. TEST CERTIFICATES

Certification shall be supplied with material showing compliance with the terms of this specification relating to technical parameter and delivery conditions as per clause 4 and 5 respectively.

WORKED  
BY

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26/4/16