



PLANT PURCHASE SPECIFICATION

(CFFP - HARDWAR)

FF 05064 Rev 1

Page 1 of 3

FERRO NIOBIUM**1. SCOPE**

This specification governs the quality of Ferro Niobium with the following requirements.

2. APPLICATION

The material shall be used as alloying addition for the melting and refining of special alloy steel.

3. CONDITION OF DELIVERY

The size should be in the range of 20-50 mm. However oversized or undersized material should not exceed 10% each by weight.

4. COMPLIANCE WITH NATIONAL STANDARDS

The specification in general is based on Indian standards specification IS 3014-1993;
Grade: 02FeNb55.

5. FREEDOM FROM CONTAMINATION

The material shall be free from extraneous contamination such as slag.

6. CHEMICAL COMPOSITION

The material shall have the following chemical composition..

ELEMENT	% MIN	%MAX
Niobium	50	60
Carbon	-	0.25
Manganese	-	2.00
Silicon	-	3.50
Sulphur	-	0.03
Phosphorus	-	0.03
Aluminium	-	1.50
Tantalum	-	2.00
Iron	-	Remainder

RMI	S.N.GHOSH	WORKED BY	M.K.SAHU
MPIC	SHYAM BABU	CHECKED BY	RANJAN
CHAIRMAN CPSC	K.B.SUBRAMANYAM	SUPERVISED BY	SVS NARAYANA
		APPROVED : PLANT STANDARDS COMMITTEE	
		PREPARED : SMS TECH	ISSUED : Steel Melting Shop
		DATE : 07/09/09	



PLANT PURCHASE SPECIFICATION

(CFFP - HARDWARE)

FF 05064 Rev1

Page 2 of 3

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 original 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 original Manufacturer's TC as above mentioning BHEL's P.O. No. and Challan No.

9. PACKING AND MARKING

Packing should be such as to prevent loss / deterioration in quality during handling, transport and storage. It should be in the original manufacturer's packing. Each package should be marked with the following details.

Name of the material
Manufacturer's Name / Trade mark
Batch/Lot No.
Net weight.

WORKED
BY

M.K.SAHU

07/09/09

CHECKED
BY

RANJAN

07/09/09

CONTROLLED COPY

BHEL	PLANT PURCHASE SPECIFICATION	FF 050064 Rev1
	C.F.F.P. HARDWAR	PAGE: 3 OF 3

REVISION RECORD SHEET

SN	Revision No.	Revision date	Nature of Changes
01.	01	07.09.2009	-Clauses 8 and 9 revised incorporating requirement of manufacturer's packing and Test certificate.

ISSUED BY:	SMS	WORKED	M.K.SAHU <i>MKS</i>
REVISION	01	DATE: 07/09/09	CHECKED RANJAN <i>Ranjan</i>
AGREED	PLANT PUR. SPEC.COMMTTEE	APPROVED	P.P.S.C.