



संस्थान क्रय निर्देश (सी.एफ.एफ.पी. - हरिद्वार)

FF 05052

Rev 02

PLANT PURCHASE SPECIFICATION (CFFP - HARDWAR)

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TEEMING POWDER FOR BOTTOM POURING INGOT

1. SCOPE

This specification governs the quality requirements of refining cushion powder.

2. APPLICATION

The material shall be used for covering the liquid metal surface during teeming of bottom pouring ingot.

3. COMPLIANCE WITH NATIONAL STANDARD

There is no National Standard covering this type of material.

4. MANUFACTURE

The process of manufacture is left to the discretion of the supplier.

5. PROPERTIES

A) Chemical Composition

The chemical composition of the material shall be as given below:

SiO ₂	33.0 - 36.0 %
Al ₂ O ₃	13.0 - 17.5 %
Fe ₂ O ₃	Less than 3 %
CaO	9-12 %
Na ₂ O	1-3 %
Fixed Carbon	11-13 %
Basicity	0.33 ± 0.06
Density	0.5 - 0.7 gm/cc
LOI	24-28 %
Flourine	Less than 2 %
Moisture	Less than 0.8 %

B) Melting Properties

Softening Temperature	1180 ± 30°C
Melting Temperature	1210 ± 20°C
Fluidity Temperature	1230 ± 20°C

C) Sieve Analysis

+30 #	NIL
+120#	10% Max
+240#	20% Max
PAN	Rest

6. SAMPLING AND METHOD FOR CHEMICAL ANALYSIS

As stipulated in relevant Indian Standard for the same or as agreed between Supplier and CFFP, BHEL.

QM	N.K. SAHU		नाम	हस्ताक्षर एवं तिथि
MPIC	K.B. SOOD		WORKED BY	GAURAV KUMAR
QM(HEAD)	K.K. GUPTA		CHECKED BY	L.K. KHANDELWAL
AGREED DEPT.	नाम	हस्ताक्षर एवं तिथि		
APPROVED : PLANT STANDARDS COMMITTEE				
PREPARED : SMS		ISSUED : SMS		DATE : 25.08.2004

BHEL भारतीय विद्युत निर्माण CORPORATION		संस्थान क्रय विनिर्देश (सी.एफ.एफ.पी. - हरिद्वार) MATERIAL COPY PLANT PURCHASE SPECIFICATION (CFFP - HARDWARE)		FF 05052 Rev 02 पृष्ठ का Page 2 Of 3	
SUPERSEDES INVENTORY NO.		7. INSPECTION - CFFP/BHEL reserves the right to inspect the material after / before despatch. Therefore the supplier should intimate in advance enclosing a copy of test certificate of the material offered for inspection. - Final inspection will be done at CFFP. - For results of analysis and properties of material the decision of CFFP shall be final and binding on the supplier. - If the material is not found suitable according to the requirements, it shall be replaced free of cost by the supplier.			
COPYRIGHT AND CONFIDENTIAL The information on this document is the property of Bharat Heavy Electricals Limited. It must not be used directly or indirectly in any way detrimental to the interest of the company.		8. CLEARANCE FOR DELIVERY 8.1 For any deviation from this specification prior approval of CFFP shall be taken. 8.2 The clearance does not release the supplier from the responsibility for non-conformance determined later on. 8.3 Objections shall be raised in case the material does not confirm to the condition specified in Specification whereby the deviations interfere to significant extent with use of the material			
भारतीय विद्युत निर्माण CORPORATION		9. TEST CERTIFICATE The supplier shall furnish 4 copies of test certificates unless otherwise specified in Purchase order. The test certificate must contain the following and must reach BHEL before or along with the material. 9.1 BHEL Reference 9.1.1 Material Specification. 9.1.2 Purchase Order No. 9.2 Supplier Reference 9.2.1 Supplier's name or emblem. 9.2.2 Material Batch No. and Serial No. 9.2.3 Container size and weight of material 9.2.4 Test Results of Chemical analysis as per clause 5.			
भारतीय विद्युत निर्माण CORPORATION		10. PACKING & MARKING The material shall be packed in 3.5 kg weight in polythene bag. These bags of 3.5 kg each shall then be packed in double lined polythene-bags as to avoid damage & moisture pickup during transit / storage. Each such bag should contain 10 bags of 3.5 kg i.e. 35 kgs of material. Each consignment shall be legibly marked with the following details:- - Supplier's name or emblem. - Batch No. / S.No - Material name - Net wt. of material / gross wt. of material.			
INVENT		Date: 25.08.2004		WORKED BY GAURAV KUMAR CHECKED BY L.K.KHANDELWAL	

S. No.	Revision No.	Revision date	Nature of Changes
01.	02	25.08.2004	Clause 5 changed.

ISSUED:	SMS TECHNOLOGY	WORKED	Gave 25/8
REVISION	02 DATE: 25/08/04	CHECKED	Sury
AGREED	PLANT PUR. SPEC.COMMTTEE	APPROVED	P.P.S.C