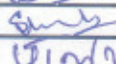
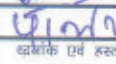
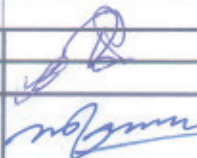
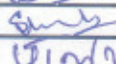
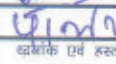
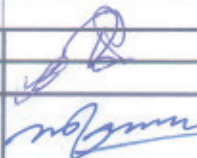
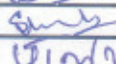
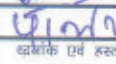
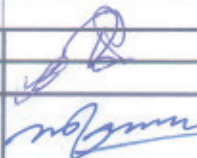


दिनांक एवं हस्ताक्षर SIGN & DATE		संस्थान क्रय विनिर्देश (सी.एफ.एफ.पी. - हरिद्वार) PLANT PURCHASE SPECIFICATION (CFFP - HARDWAR)	FF06010 Rev 03 पृष्ठ का Page 1 of 3																																			
SUPERSEDES INVENTORY NO. राशनी सूची संख्या को अतिरिक्त करना	FOUNDRY REFRACTORIES (SLEEVES, KNEES, REDUCERS, TEES, POURING CUP)																																					
COPYRIGHT AND CONFIDENTIAL The information on this document is the property of Bharat Heavy Electrical Limited. It is not to be used directly or indirectly in any way detrimental to the interest of the company.	1. General This specification covers the requirement of Foundry refractory items to be used in foundries for making Steel Castings.																																					
	2. Application The refractory items will be used in making gating system in the moulds for entry of liquid steel at temperature in the range of 1570 °C to 1620 °C.																																					
	3. Compliance with national standard. This specification is based on IS:8-1994																																					
	4. Physical Properties																																					
	4.1 The sleeve should be made of High Heat Duty fire clay suitable to withstand the metalostatic erosion, which is equivalent to Type 2 of specification IS:8 – 1994																																					
	4.2 Refractory sleeves are to be manufactured by wet process using grain size 2 mm max.																																					
स्वत्वाधिकार एवं गोपनीयता इस दस्तावेज में दी गई सूचना भारत हेवी इलेक्ट्रिकल्स की सम्पत्ति है, इसका प्रयोग एवं अप्रत्यक्ष रूप से किसी भी तरह प्रयोग, जो कि कंपनी के हित में हानिकारक हो व किया जाए।	4.3 The refractories shall be compact, of homogeneous texture and free from cracks, voids, surface roughness, (felt by rubbing with finger), low melting spots and inclusions. Sampling may be done as per IS1528																																					
	4.4 These refractories shall be burnt evenly throughout without any soft spots and inclusions.																																					
	4.5 The refractories should be suitable for cutting with refractory cutting disc without excess heating/emission of sparks.																																					
	4.6 The properties when tested in laboratory as per IS-1528 should be as per the following table.																																					
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Apparent porosity</td> <td style="width:50%;">23 max</td> </tr> <tr> <td>Cold crushing strength</td> <td>20 Mpa. Min</td> </tr> <tr> <td>Permanent linear change after heating at 1450°C for 2 hrs</td> <td>±1.0%</td> </tr> <tr> <td>Alumina , Iron Oxide</td> <td>38% min, 2.2% max</td> </tr> </table>			Apparent porosity	23 max	Cold crushing strength	20 Mpa. Min	Permanent linear change after heating at 1450°C for 2 hrs	±1.0%	Alumina , Iron Oxide	38% min, 2.2% max																											
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		PLANT PURCHASE SPECIFICATION (CFFP - HARDWAR)		पृष्ठ Page	का 2 of 3
सारणी सूची संख्या को अधिलेखित करना	SUPERSEDES INVENTORY NO.	5. Acceptance For supplies from approved vendors, each consignment shall be accepted on the basis of supplier's TC and GC. Material shall be checked as per Clause 4.3 and 4.5 on random sample basis. Surveillance checking shall be done for properties mentioned in Clause 4.6			
6. Test certificate 6.1 Unless otherwise specified, one original and three copies of original manufacturer's test certificates shall be supplied with each consignment bearing the following information. In order to facilitate quick clearance of material, the supplier shall ensure to send a copy of test certificate along with despatch document. a. BHEL PO No. with Date b. Specification No. c. Supplier reference / trade mark d. Test results as per Clause 4.6 e. Any other specific information which the supplier would like to convey. 6.2 Suppliers other than the original manufacturer shall ensure providing original manufacturer's test certificates with linkage to supplier's invoice stating the batch No., lot No., etc of the supply.		7. Packing and Marking a) The supplier will ensure the supply of refractories to CFFP in dry condition without breakage or damage. b) Each piece of refractory item should have supplier's identification mark, and size as mentioned in the consignment document.			
8. Inspection, Deviation and Replacement: 8.1 BHEL reserves the right to inspect material at site before despatch. The supplier shall intimate in advance about readiness of material enclosing a copy of test certificate of the material offered for inspection. However inspection at BHEL shall be final. The supplier shall offer BHEL representative all reasonable test facilities without charge to satisfy the latter that the material being furnished is 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. 8.2 If the material received at CFFP is not found in accordance with the requirements, it shall be liable to be rejected and the supplier will have to replace it free of cost at the earliest. 8.3 For any deviation from the specification sought by the supplier, prior approval of BHEL must be obtained in writing.		7. Packing and Marking a) The supplier will ensure the supply of refractories to CFFP in dry condition without breakage or damage. b) Each piece of refractory item should have supplier's identification mark, and size as mentioned in the consignment document.			
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