










दिनांक एवं हस्ताक्षर SIGN & DATE		संस्थान क्रय विनिर्देश (सी.एफ.एफ.पी. - हरिद्वार)  <b>PLANT PURCHASE SPECIFICATION</b> (CFFP - HARDWAR)	<b>FF53685 Rev 05</b>  पृष्ठ का Page 1 of 4														
सुपरसेड्स INVENTORY NO.  समझी-वृत्ति संख्या को अधिकतम करार	<b><u>CHROMITE SAND FOR USE IN FOUNDRIES</u></b>  <b>1. General:</b>  This specification covers the requirements of Chromite sand for use in foundries.  <b>2. Application:</b>  The Chromite sand shall be used for facing of pattern and core boxes in mould and core making.  <b>3. Compliance with national standard:</b>  This specification is based on IS-6788:1973, reaffirmed 2003.  <b>4. Physical and Chemical Characteristics:</b>  4.1 Chromite sand grains shall be crystalline, mostly sub-angular in shape.  4.2 The material shall have shining black appearance and shall be free from foreign material, e.g. low melting point minerals, carbonates.  4.3 Chemical Composition:  Chromite sand when tested as per IS12667, shall have typical analysis as under:  <table border="0"> <tr> <td>Cr<sub>2</sub> O<sub>3</sub></td> <td>46% Min.</td> </tr> <tr> <td>Fe<sub>2</sub> O<sub>3</sub></td> <td>27% Max</td> </tr> <tr> <td>MgO</td> <td>12% Max</td> </tr> <tr> <td>Al<sub>2</sub>O<sub>3</sub></td> <td>16.5% Max.</td> </tr> <tr> <td>SiO<sub>2</sub></td> <td>1.1% Max.</td> </tr> <tr> <td>CaO</td> <td>0.5% Max</td> </tr> </table>  4.4 Clay - 0.5 % max.  4.5 Moisture - 0.2% max.  4.6 pH value of sand shall be in between 6.5 and 8.0  4.7 Turbidity - 210 ppm max.			Cr <sub>2</sub> O <sub>3</sub>	46% Min.	Fe <sub>2</sub> O <sub>3</sub>	27% Max	MgO	12% Max	Al <sub>2</sub> O <sub>3</sub>	16.5% Max.	SiO <sub>2</sub>	1.1% Max.	CaO	0.5% Max		
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स्वत्वाधिकार एवं गोपनीयता  इस दस्तावेज में दी गई सूचना भारत केवी इलेक्ट्रिकल्स की संपत्ति है। इसका प्रयोग एवं अनुपयोग इस से किसी भी तरह प्रयोग, उसे कि कंपनी के हित में हानिकारक हो न किया जाए।																	
हस्ताक्षर एवं दिनांक  समझी-वृत्ति संख्या INVENTORY NO.	RMI MPIC CHAIRMAN PPSC	SOMNATH GHOSH SHANTANU VK AGARAWAL  नाम NAME  सहायक विभाग AGREED DEPT.	<table border="1"> <tr> <td>अनुवादक TRANSLATED BY</td> <td></td> </tr> <tr> <td>निर्माणकर्ता WORKED BY</td> <td>T DAVE</td> </tr> <tr> <td>जांचकर्ता CHECKED BY</td> <td>AK CHAKRABORTY</td> </tr> <tr> <td>अनुमोदित एवं हस्ताक्षर DATE &amp; SIGNATURE</td> <td>AK CHAKRABORTY</td> </tr> <tr> <td colspan="2">           स्वीकृति : <b>संस्थान मानक समिति</b>            APPROVED : <b>PLANT STANDARDS COMMITTEE</b> </td> </tr> <tr> <td>           तैयार : PREPARED : FOUNDRY TECH         </td> <td>           जारी : फाउण्ट्री टेक्नालॉजी            ISSUED : FOUNDRY TECHNOLOGY         </td> </tr> <tr> <td colspan="2">           दिनांक : DATE 25.7.11         </td> </tr> </table>	अनुवादक TRANSLATED BY		निर्माणकर्ता WORKED BY	T DAVE	जांचकर्ता CHECKED BY	AK CHAKRABORTY	अनुमोदित एवं हस्ताक्षर DATE & SIGNATURE	AK CHAKRABORTY	स्वीकृति : <b>संस्थान मानक समिति</b> APPROVED : <b>PLANT STANDARDS COMMITTEE</b>		तैयार : PREPARED : FOUNDRY TECH	जारी : फाउण्ट्री टेक्नालॉजी ISSUED : FOUNDRY TECHNOLOGY	दिनांक : DATE 25.7.11	
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		<b>PLANT PURCHASE SPECIFICATION</b> (CFFP - HARDWAR)		पृष्ठ Page	का 2 of 4
सुपरसेड INVENTORY NO.	<b>5. Grain size &amp; distribution:</b>  5.1 The Grain Fineness No. (GFN) of chromite sand shall be AFS 45 to 55. However both upper and lower limit may be extended by 2 points (i.e., AFS43 and 57) provided the grain distribution condition is met.  Grain distribution:  Total retention on ASTM Sieve Nos.50, 70 and 100 shall be 70% min. (Sizes corresponding Sieve Nos. 50, 70 and 100 are 300, 212 and 150 microns)  5.2 Fines i.e. grains having size less than 150 microns ( -100 ASTM) shall be 4.0% max.				
सामग्री सूची संख्या को अधिकृत करता					
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<b>6. Sampling:</b>  Samples shall be drawn in accordance with IS-1811: 1961 for testing purposes.					
<b>7. Inspection, Acceptance and Replacement:</b>  7.1 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 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.  7.2 The material shall be tested in CFFP/BHEL as per Clause 4.1, 4.3, 4.4, 4.5, 4.6, 4.7, 5, 6 for new suppliers. For established supplier, the testing shall be done on surveillance basis.  7.3 If the material received at CFFP is not found in accordance with the requirements, it shall be rejected and the supplier will have to replace it free of cost at the earliest.					
स्वतंत्रताधिकार एवं गोपनीयता इस दस्तावेज में दी गई सूचना भारत हेवी इलेक्ट्रिकल्स की सम्पत्ति है इसका प्रयोग एवं अप्रयोग इस से किसी भी तरह प्रयोग, जो कि कंपनी के हित में हस्तिकारक हो न किया जाए।					
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		जांचकर्ता CHECKED BY	AKC / YNVR		



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सामग्री सूची संख्या को अधिकृतित करना SUPERSEDES INVENTORY NO	<b>8. Test Certificates:</b>  8.1 Unless otherwise specified, one original and three copies of test certificate from the original manufacturer 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. <ul style="list-style-type: none"> <li>a. BHEL PO No. with Date</li> <li>b. Supplier reference / trade mark</li> <li>c. Identification No. / Batch No.</li> <li>d. Properties as per Clause 4 &amp; 5</li> <li>e. Any other specific information which the supplier would like to convey.</li> </ul> 8.2 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.											
COPYRIGHT AND CONFIDENTIAL The information on this documents is the property of Bharat Heavy Electrical Limited It must not be used directly or indirectly in any way detrimental to the interest of the company	<b>9. Packing and Marking:</b>  9.1 Chromite sand shall be packed in bags. However, adequate protection from moisture pickup/contamination/loss of material during transportation and storage shall be provided.  9.2 The packing shall be of the original manufacturer's. The bags containing chromite sand shall be clearly marked with the following:  Supplier' name Name of the material Identification No./Batch No. Net weight											
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संस्थान क्रय विनिर्देश (सी.एफ.एफ.पी - हरिद्वार)

FF53685 Rev 05

PLANT PURCHASE SPECIFICATION  
(CFFP - HARDWAR)

पृष्ठ का  
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SUPERSEDES  
INVENTORY NO.

समय  
शुद्धि

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स्वाधिकार एवं गोपनीयता  
यह प्रलेख मेरी गैर  
सुखी भाव से ही इलेक्ट्रिकल्स की सम्पत्ति है. इसका प्रयोग एवं  
अप्रत्यक्ष रूप से किसी भी तरह प्रयोग, जो कि कंपनी के हित में  
होना चाहिए, उसे न किया जाय।

हस्ताक्षर एवं  
SIGN & DATE

समय  
शुद्धि

RECORD OF CHANGES

REV CODE	NO. OF CHANGES	DOCU. NO.	SHEET NO.	SIGN	DATE
01	1. Clause 6.4 added. 2. Clause 8 modified.		2		29.08.03
02	1. Clause no. 4,5 and 6 modified. 2. TC requirement modified.		1 and 2		25.10.06
03	1. Clause No. 4.3 modified and 4.8 deleted		3		27.02.07
04	Clause 8 & 9 modified to introduced original manufacturer's criteria in test certificate & packing.		1 4		18.7.09
05	2 point tolerance in GFN given. Testing procedure standard for chemical composition mentioned.		2		25.7.11

DISTRIBUTION OF PRINTS

RMI	✓
STANDARD SECTION	✓
MPIC	✓

निर्माणकर्ता WORKED BY	T DAVE		
जांचकर्ता CHECKED BY	AKC		