



An ISO 9001  
Company

## Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

MATERIALS MANAGEMENT

<p align="center"><b>TITLE</b></p> <p><b>Supply of pourable insulation , Castable refractory Grade A&amp;C for BHEL projects.</b> <b>– Invitation for Expression of Interest</b></p>	<p>Phone: +91 <b>431 2577617/2577472</b> Fax : <b>+91 431 252 0719</b> Email : <a href="mailto:stv@bheltry.co.in">stv@bheltry.co.in</a>; <a href="mailto:cmouli@bheltry.co.in">cmouli@bheltry.co.in</a> <a href="mailto:rmkrish@bheltry.co.in">rmkrish@bheltry.co.in</a></p>
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	<p><b>Reference Number:</b> <b>Enquiry – “33pin/03”</b></p>	<p><b>Enquiry Date:</b> <b>03.02.10</b></p>	<p><b>Due date for submission of quotation: 05.05.10</b></p>
<p>You are requested to quote the Enquiry number date and due date in all your correspondences. This is only a request for quotation and not an order</p>			

**BHEL/Trichy is looking for empanelment of new vendors for supply of “POURABLE INSULATION & CASTABLE REFRACTORY GRADE A& C AS PER SPECIFICATION”**

<p>BHEL commercial terms &amp; conditions with Price Bid formats and all annexure can be downloaded from BHEL web site <a href="http://www.bhel.com">http://www.bhel.com</a> or from the Government tender website <a href="http://tenders.gov.in">http://tenders.gov.in</a> (public sector units) Bharath Heavy Electricals Limited) under enquiry reference “<b>33pin/03</b>”</p>	
<p>Tenders should reach us before 14:00 hours on the due date Technical bid will be opened at 14:30 hours on the due date Tenders would be opened in presence of the tenderers who have submitted their offers and who may like to be present.</p>	<p>Yours faithfully, <b>For Bharath Heavy Electricals Limited</b></p> <p><i>Sr.Mnager/Purchase/SD</i></p>



355-056

## PURCHASE SPECIFICATION FOR CASTABLE REFRACTORY TYPE-A

01. Permanent linear change at 1550° C : ±0.60 % Max
02. Crushing Strength in Kg/Cm<sup>2</sup>  
at 110 °C and cooled to ambient temp. : 300 Min  
After heated at each of the following temp.  
for 3 hours and cooled to ambient temp.  

at 600°C	:	200 Min
at 1200°C	:	210 Min
<div style="border: 1px solid black; display: inline-block; padding: 2px 5px;">01</div> at 1600°C	:	275 Min
03. Service Temperature : 1750 °C
04. Pyrometric Cone Equivelent :  

Seger cone	:	at 1825°C 37 Min
or		
Orton Cone	:	at 1820°C 37 Min
05. Bulk Density after cast and dried at 110°C  
and cooled to ambient temp.in Kg/m<sup>3</sup> : 2900 Max
06. Grog Size in mm : 5 Max
07. Chemical Composition:  
Fe<sub>2</sub>O<sub>3</sub> ( Ferric Oxide ) : 5 % Max
08. Inspection and testing requirements shall be as per IS:10570(Latest)

### PACKING:

The Material shall be packed and sealed in high density polythene bags.The thickness of Polythene bags shall be at least 0.2 mm. Then the sealed bags shall be put inside Bituminus lined polythene bonded hessian bags,and sealed by machine stiching.



—— Specification converted as soft copy.

INSULATION	PREPARED	A.R.JOTHI GURUNATHAN.			DRAWING NO :	REV
	CHECKED	C.GUNASEKARAN			4-33-210-00792	02
	APPROVED	C.S.ATHITHYAN				



355-056

## PURCHASE SPECIFICATION FOR CASTABLE REFRACTORY TYPE-C

01. Permanent linear change at 1350° C (%) : ±0.25 Max
02. Crushing Strength in Kg/Cm<sup>2</sup>  
at 110 °C and cooled to ambient temp. : 250 Min  
  
After heated at each of the following temp.  
for 3 hours and cooled to ambient temp.  
  
at 600°C : 150 Min  
at 900°C : 120 Min  
at 1350°C : 225 Min
03. Service Temperature : 1350 °C
04. Pyrometric Cone Equivelent :  
Seger cone : at 1580°C 26 Min  
or  
Orton Cone : at 1590°C 23 Min
05. Bulk Density after cast and dried at 110°C  
and cooled to ambient temp.in Kg/m<sup>3</sup> : 2100 Max
06. Grog Size in mm : 5 Max
07. Chemical Composition:  
Fe<sub>2</sub>O<sub>3</sub> ( Ferric Oxide ) : 5 % Max
08. Inspection and testing requirements shall be as per IS:10570(Latest)

### PACKING:

The Material shall be packed and sealed in high density polythene bags.The thickness of Polythene bags shall be at least 0.2 mm. Then the sealed bags shall be put inside Bituminus lined polythene bonded hessian bags,and sealed by machine stiching.



—— Specification converted as soft copy.

INSULATION	PREPARED	A.R.JOTHI GURUNATHAN.			DRAWING NO :	REV
	CHECKED	C.GUNASEKARAN			4-33-210-00793	01
	APPROVED	C.S.ATHITHYAN				



355-056

## PURCHASE SPECIFICATION FOR POURABLE INSULATION

01. Service temperature : 650° C
02. Permanent linear change at 650°C : ±2.0 %
03. Compressive Strength in Kg/Cm<sup>2</sup>
  - at 110°C : 22 Minimum
  - at 500°C : 14 Minimum
04. Bulk Density at 110°C (Kg/m<sup>3</sup>) : 660 Maximum  
Bulk Density at 500°C (Kg/m<sup>3</sup>) : 640 Maximum
05. Thermal Conductivity K value :  
At Mean temp.
  - 250 °C in Kcal / m hr °C : 0.16 (Maximum)
  - 500 °C in Kcal / m hr °C : 0.20 (Maximum)
06. Chemical Composition:  
Fe<sub>2</sub>O<sub>3</sub> ( ferric oxide ) : 5 % Maximum
07. Thermal conductivity Test shall be done as per IS:9490 latest or ASTM 201&202 latest.
08. Inspection and other Testing requirements shall be as per approved **Quality plan**.

### PACKING:

The Material shall be packed and sealed in high density polythene bags. The thickness of polythene bags shall be at least 0.2 mm.

Then the sealed bags shall be put inside Bituminus lined polythene bonded Hessian bags and sealed by machine stitching.



—— Specification corrected and converted as soft copy.



—— Specification corrected in sl.no 07 on 06.01.05.

INSULATION	PREPARED	A.R.JOTHI GURUNATHAN.			DRAWING NO :	REV
	CHECKED	C.GUNASEKARAN			4-33-210-00794	02
	APPROVED	C.S.ATHITHYAN				