



ISO 9001:2000
& 14001:2004
NAVARATNA
COMPANY

सामग्री प्रबन्धन (क्रय विभाग)
MATERIAL MANAGEMENT(PURCHASE)
सेन्ट्रल फाउन्ड्री फोर्ज प्लांट, भारत हेवी इलेक्ट्रिकल्स लिमिटेड
CENTRAL FOUNDRY FORGE PLANT, BHEL HARDWAR
रानीपुर, हरिद्वार (भारत)
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Ref: FF/PPX/EOI/04
Dt. 01/06/2009

Sub: **EXPRESSION OF INTEREST FOR SUPPLY OF Alkaline Resin & Catalyst for use in Moulding.**

Dear Sir,

CFFP/BHEL has huge requirement for following item and thus desires Expression of Interest from interested vendors for supply of this item.

EOI NO.	Description	Due date
FF/PPX/EOI/04	Alkaline Resin & Catalyst for use in Moulding.	30/06/2009

You are requested to please submit your interest along with Supplier Registration Form (which can be downloaded from our web site www.bhel.com).

Kindly note that supplier registration form is mandatory requirement for processing your application against this Expression of Interest .

Thanking you.

(Rohit Varshney)
Engineer (Pur)

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RMI MPIC CHAIRMAN CPSC B RAHA AGREED DEPTT NAME DATE & SIGNATURE	KBS RANJAN B RAHA NAME DATE & SIGNATURE	<div style="text-align: center;"> संस्थान क्रय विनिर्देश (सी.एफ.एफ.पी. - हरिद्वार) PLANT PURCHASE SPECIFICATION (CFFP - HARDWAR) </div> <div style="text-align: center; margin-top: 20px;"> ALKALINE PHENOL FORMALDEHYDE RESIN AND CATALYST </div> <div> <p>1. General</p> <p>This specification governs the technical requirements of Alkaline Phenol Formaldehyde resin and catalyst for making moulds with silica or chromite sand to manufacture steel castings.</p> <p>2. Application</p> <p>The resin and catalyst shall be used as binder to prepare sand mix (silica or chromite) for making mould and core making in Foundries.</p> <p>3. Compliance with national standard</p> <p>There is no national standard in compliance with above standard.</p> <p>4. Appearance</p> <p>4.1 The resin shall be clear liquid, reddish brown or dark red in colour, free from dust and other visible impurities.</p> <p>4.2 The catalyst shall be colourless to pale yellow clear liquid, free from any suspended matter.</p> <p>4.3 During storage, separate layer at top and sedimentation at the bottom should not be formed within the stipulated shelf life.</p> <p>5. Properties</p> <p>5.1 RESIN:</p> <p>The resin when tested shall have the following properties:</p> <table style="width: 100%;"> <tr> <td>Viscosity at 30 °C</td> <td>30-50 secs</td> </tr> <tr> <td>Density at 25 °C</td> <td>1.2-1.3 gm/cc</td> </tr> <tr> <td>Nitrogen content</td> <td>Traces</td> </tr> <tr> <td>Permissible content of Free phenol</td> <td>0.5% max.</td> </tr> <tr> <td>Permissible content of Free Formaldehyde</td> <td>0.2% max.</td> </tr> <tr> <td>Solid content</td> <td>50-60%</td> </tr> <tr> <td>Shelf life</td> <td>Minimum 8 weeks after receipt of material at CFFP</td> </tr> </table> </div>	Viscosity at 30 °C	30-50 secs	Density at 25 °C	1.2-1.3 gm/cc	Nitrogen content	Traces	Permissible content of Free phenol	0.5% max.	Permissible content of Free Formaldehyde	0.2% max.	Solid content	50-60%	Shelf life	Minimum 8 weeks after receipt of material at CFFP	FF06025 Rev01 पृष्ठ का Page 1 of 5
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RMI MPIC CHAIRMAN CPSC B RAHA AGREED DEPTT NAME DATE & SIGNATURE	KBS RANJAN B RAHA NAME DATE & SIGNATURE	TRANSLATED BY WORKED BY CHECKED BY SUPERVISED BY N KHAN	T DAVE AKC / YNVRAO
संस्थान मानक समिति APPROVED : PLANT STANDARDS COMMITTEE		PREPARED : FOUNDRY TECH ISSUED : FOUNDRY TECHNOLOGY DATE : 27.2.07	



संस्थान क्रय विनिर्देश (सी.एफ.एफ.पी - हार्डवेयर)

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5.2 CATALYST

Catalyst shall be ester material and when used with the resin supplied, will give the properties as per Clause 5.3. The shelf life of the catalyst should be more than one year from the date of receipt of material in CFPP.

5.3 Properties after mixing of Resin and Catalyst sand system:

5.3.1 The minimum dry compressive strength shall be as given below:

After 4 hours - 12 kg/sqcm

After 24 hours - 24 kg/sqcm

In winter, when development of strength becomes slow, strength development after 24 hours is to be considered.

5.3.2 Bench life shall be 10 minutes minimum.

5.3.3 Gas emission during moulding and pouring shall not be excessive which inhibit working on shop floor.

6. Sampling and method of preparation of sand mix

6.1 Sampling

The composite samples of resin and catalyst shall be drawn from each batch of the consignment on random basis.

6.2 Preparation of sand mix

Silica sand (AFS 40-50) - 100 parts

Alkaline Phenolic Resin - 2.4% of sand

Catalyst - 22% of resin.

6.3 The resin and catalyst of the same source will be used in a sand mix.

6.4 Solid content shall be measured by heating up resin at 150 °C for 1 hour on a petridish.

INVENTORY NO

अवधि का समय

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संस्थापक एवं आपूर्तिकर्ता को सूचित है कि यह दस्तावेज़ गोपनीय है। इसमें शामिल जानकारी के बिना किसी भी प्रकार से इसका उपयोग नहीं किया जाना चाहिए।

SIGN & DATE

अवधि का समय

निर्माणकर्ता
WORKED BY

T DAVE

जाँचकर्ता
CHECKED BY

AKC /
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प्रमाणित एवं दिनांक
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7. Acceptance Test

- 7.1 The supplier shall offer the material, batchwise to CFFP only after evaluating the suitability with respect to the properties in Clause 5 and 6.
- 7.2 CFFP shall however re-evaluate the properties as per Clause 5.3 for each batch of consignment. The properties as per Clause 5.1 will be checked on surveillance basis.
- 7.3 Within shelf life, if the binder do not meet the property requirements as per clause no. 5 and 6 of this specification, it shall be rejected irrespective of its previous acceptance. The supplier shall be liable for replacing such material free of cost.
- 7.4 The material shall be judged on shop floor during use for pungency of fumes. If it is found to be excessive and creating difficulties in working, the same shall be rejected.

8. Inspection, Deviation and Replacement

- 8.1 BHEL reserves the right to inspect material at site before despatch. The supplier shall intimate in advance enclosing a copy of test certificate of the material offered for inspection.
- 8.2 If the material received 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.
- 8.3 For any deviation from the specification demanded by the supplier prior approval of BHEL must be obtained in writing.

9. Test Certificates

- Three copies of test certificates shall be supplied for every batch of resin and catalyst with the following information:
- BHEL PO No. with Date
 - Specification No.
 - Supplier reference
 - Identification No. / Batch No.
 - Date of manufacture
 - Date of expiry
 - Test results as per Clause 5 & 6
 - Any change in addition level
 - Storage system for resin and catalyst
 - Any other specific information which the supplier would like to convey.

विवरणकर्ता
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अथवा अधिकारी

10. Packing and Marking

The resin and catalyst should be supplied in sealed containers. The material of the container should be such that it will not have any effect on the quality of resin and catalyst. Each container shall have the following marking.

- (a) Supplier's name and trade mark, if any.
- (b) Name of the product
- (c) Date of manufacture and date of expiry
- (d) Batch No.
- (d) Net Weight & Gross Weight

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जांचकर्ता CHECKED BY	AKC / YNVR	

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