



INSULATION SKETCH

IN.SK.30321

INSULATION SYSTEMS ENGINEERING

Rev. No.: 00

**PRE-QUALIFICATION REQUIREMENTS (PQR) FOR  
PROCUREMENT OF 0.08 X 1000 MM BISPHENOL-A  
EPOXY BONDED POLYESTER FILM BACKED MICA  
PAPER SHEET AND TAPE TO BP-25183**

Rev. Dt.: 19/06/2013

Sht. 1 of 2 Shts.

**1. Background**

BHEL is manufacturing various types of rotating electrical machines (motors & generators) for power plants / industries / traction applications etc. In these machines, various types of insulating materials are required for providing proper electrical isolation between live and earthed parts. These motors and generators are class-F insulated and have a very long expected working life.

These machines require, in addition to other materials, various insulating and binding materials for stator and rotor windings. For one such material, namely Bisphenol-A epoxy bonded polyester film backed mica paper sheet and tape; BHEL intends to develop alternate sources for procurement. This material is used for slot and overhang insulation of rotor bars of resin rich as well as resin poor machines. The major technical and quality requirements are given in BHEL Spec. BP-25183. Vendors have to confirm complete compliance to BHEL purchase spec. BP-25183 and also fulfill the Pre-Qualification Requirements (PQRs) given in the present specification (IN.SK.30321) to qualify for supplying this material to BHEL Bhopal.

**NOTE: Only Original manufacturers or their authorized representatives may apply for registration along with letter of authorization from the principal. Traders/ agents/ dealers/ stockists are not acceptable.**

**2. General information to be furnished by the firm (for information only):**

SL.NO.	DESCRIPTION
1	Year of Establishment of manufacturing firm
2	Is the firm ISO 9001 certified?

**3. Qualifying information to be furnished by the firm (Information/ acceptance to be given in this sequence only) :**

1	<b>List of manufacturing facilities</b> The firm must have adequate manufacturing facilities at their works/in-house for manufacturing this material, exactly as per the technical specification BP-25183.
2	<b>List of testing facilities</b> Testing facilities required to conduct all the tests as per spec. BP-25183 must be available with the firm, preferably in-house. List of outsourced facilities may be submitted. Outsourced labs/ firms should be NABL accredited.

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ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE STATED



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Sht. 2 of 2 Shts.

3	The firm should have at least 3 years manufacturing and supply experience of same/similar (resin rich polyester film backed mica paper tape/wrapper) material to some reputed motor/generator manufacturers. The proof of the same (PO Copies) with supply experience to be attached. If required, prices can be masked in PO copies. Performance certificate (VPR etc.) of the vendor from these manufacturers may be attached if available.
4	Production capacity of the firm for this material per month/annum to be informed
5	The firm should accept and meet all clauses of technical specification BP-25183
6	Vendor to disclose the type/grade/source of polyester film, mica paper and varnish used for manufacturing this material

#### 4. TECHNICAL EVALUATION AND CLEARANCE

Vendors qualifying the above requirements will have to submit 10 sm sample of this material in full width (0.08 mm tk.) 'Free of cost' along with the TC of material for testing as per BHEL spec BP-25183 by BHEL's TSD department and for shop trial. If the sample fails in TSD testing / shop trial, the vendor may not be considered.

The vendors found successful after evaluation may apply for assessment/registration as per BHEL's Supplier Evaluation and Review Procedure.

(See the link [http://www.bhelbhopal.com/bhel\\_bhupal\\_vendor\\_registration.htm](http://www.bhelbhopal.com/bhel_bhupal_vendor_registration.htm))

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