

	AMENDMENT -NOTIFICATION		AA 211 17	Rev. No. 03							
			PAGE 1 OF 1								
AA 211 17: CREPE KRAFT PAPER 1) In PREFACE SHEET and in Cl 3.0 of page 1 of 3, the year reference of IS: 9335 is modified as "IS: 9335, Part 3/Sec 5-1985 (Reaffirmed 1996)". 2) PAGE 3 OF 3; Cl 10.2 Elongation at break (stretch): The table given under the clause is modified as follows: <table style="margin-left: auto; margin-right: auto;"> <tr> <td>"Type A & B</td> <td>Elongation</td> <td>60±9</td> </tr> <tr> <td>Type C</td> <td>Elongation</td> <td>100±15 "</td> </tr> </table>						"Type A & B	Elongation	60±9	Type C	Elongation	100±15 "
"Type A & B	Elongation	60±9									
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Please see Instructions on the reverse.											
Ref: Cl. 32.4.19 OF MOM OF MRC-E	Amd No. 02	Approved MRC-E	Issued CORP. R&D	Date 15.01.2003	Cum.Sr.No. A 3369						

1. Preface Sheet:

Correct the Indian Equivalent Standard as follows:

1. INDIAN : IS:9335-Part 3/Sec.5-1985
(Reaffirmed 1990)

2. Page 1 of 4. Clause 3. COMPLIANCE WITH NATIONAL STANDARDS:

Replace the existing matter with the following:

The material shall comply, in general, with the requirements of the following National Standard and also meet the requirements of this specification.

IS:9335-Part 3/Sec.5-1985 : Cellulosic Paper For Electrical
(Reaffirmed 1990) : Purposes.- Part 3. Specification For
Gr:5B2-2H1 : Individual Materials. Sec 5. Special
: Papers

IEC 554.3.3- 1984 : Cellulosic Paper For Electrical
Gr:5B2-2H1 : Purposes.- Part 3. Specification For
: Individual Materials. Sec 3. Creep
: Papers

Please see instructions on the reverse.

Ref:	Amd. No.	Approved	Issued	Date	Cum. Sr. No.
Cl.28.3.15 of MOM of MRC(E)	01	MRC(E)	CORP. R&D	Sep. '94	A 1604

CREPE KRAFT PAPER**1.0 GENERAL :**

This specification governs the quality of hard porous, creped kraft insulating paper made from base paper of medium permeability complying with the requirements of specification AA 21110. Three types (A, B and C) of crepe paper have been specified. The crepe paper shall be manufactured in natural colour and shall not be dyed. The material in insulating oil to IS: 335 has temperature index of at least 105.

2.0 APPLICATION :

This paper is used for making leads and shields in transformers. Type B crepe paper is also used for covering of 'Crepe Paper Covered Flexible Copper Cable' to CPS AA 28502 and Crepe Paper Covered Round Copper Conductors to BP 28162.

3.0 COMPLIANCE WITH NATIONAL STANDARD :

This paper is technically identical to type 3.1 of IEC publication 554-3-3-1980 "Cellulosic Papers for Electrical purposes, Part 3: Individual material, sheet 3: crepe paper" and IS:9335 (Part 3/Sec.3) -1984. The designation of Three Types of Crepe Paper as per IS/IEC terminology is as under.

Type	IS/IEC Type Designation
A	3.1 - 20 - 60C - Fine
B	3.1 - 60 - 60C - Fine
C	3.1 - 100 - 100C - Fine

4.0 DIMENSIONS AND TOLERANCES :**4.1 Sizes :**

Type & Width shall be stated on the order.

4.2 Thickness :

The nominal thickness of base and creped paper and tolerances shall be as under :

Type	Base Paper		Crepe Paper	
	Nominal Thk (um)	Tolerance (+um)	Nominal Thk (um)	Tolerance (+ um)
A	25	2.5	75	25
B	75	7.5	250	50
C	125	12.5	350	50

Revisions :			Approved :		
Brought upto date			INTERPLANT MATERIAL RATIONALISATION COMMITTEE - MRC		
Rev. No.	Rev. Date	Revised :	Prepared	Issued	Date
03	MAY '89	BHOPAL	BHOPAL	CORP. R&D	MAY '80

4.3 **Width :**

Standard widths shall be 700, 750, 800, 900 and 1000 mm.

5.0 **FINISH :**

All types of crepe paper shall be calendered and Creping shall be fine.

5.0 **TEST METHOD :**

Unless otherwise specified, the tests shall be conducted in accordance with relevant methods of IEC Pub. 554-3-3 and 554-2/IS:9335 (Part 3/Sec.3) and IS:9335 (Part 2).

7.0 **SAMPLE FOR TEST :**

20 sheets each of size 300 x 300 mm base paper as well as crepe paper, without fold or creases shall be supplied for testing and approval purposes. Machine direction shall be marked on all sheets of base paper.

8.0 **BASE PAPER :**

Base paper used for making a dry, plane web, prior to creping shall conform to spec. AA 21110 (Type 5 B2 - 2M3 of IEC publication 554-3-5/ IS 9335 (Part 3/Sec5)-1985:

9.0 **PHYSICAL PROPERTIES :**9.1 **Moisture Content :**

8% Max.

9.2 **Hill Count :**

Type	Hill Counts per 10 mm
A	12 Min.
B	16 Min.
C	20 Min.

9.3 **Substance (gm/m^2) :**

Type	A	: 35 $\pm$ 10%
	B	: 85 $\pm$ 10%
	C	: 150 $\pm$ 10%

10.0 **MECHANICAL PROPERTIES :**10.1 **Tensile Strength: (expressed as extended tensile index)**

Machine direction: 39 Nm/g, Min.

10.2 Elongation at break (stretch) :

Type	Elongation (%)		
	Nom.	Min.	Max.
A & B	60	51	69
C	100	85	115

11.0 CHEMICAL PROPERTIES :11.1 Ash Content :

1%, Max.

11.2 Conductivity of 5% aqueous extract :

10 mS/m, Max.

11.3 pH of 5% aqueous extract :

6 - 8

12.0 TEST CERTIFICATE :

Three copies of test certificate shall be supplied along with each consignment, giving the following information:

AA 21117 (Revision 03) : Crepe Kraft Paper

Type : A, B or C

Width of roll

BHEL Order No.

Batch/Lot No.

No. of rolls

Net weight/gross weight

Test results obtained and certificate for compliance with clauses 4, 5, 8 to 11.

13.0 PACKING AND MARKING :

The crepe paper shall be supplied in rolls tightly wound on suitable single piece hollow formers of strong straw board having I.D. of 70 or 75 mm. The rolls shall be adequately wrapped with suitable seaworthy packing for transit through tropics preventing any moisture ingress or damage.

Each roll shall be cleanly and indelibly marked with the following information:

AA 21117 : Crepe Kraft Paper

BHEL Order No.

Manufacture's Name and Grade

Batch/Lot No.

Type and Width

No. of rolls

Net weight/Gross weight.