


	CORPORATE PURCHASE SPECIFICATION		AA 21108		
			Rev. No. 05		
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<u>PRESSBOARD – SOLID FOR ELECTRICAL PURPOSES</u>					
<p>1. General : This specification governs the quality requirements of a very hard and rigid solid pressboard characterised by high purity and mechanical strength and capable of being sheared without showing ragged edges. Its surface bears mash marks. It is manufactured by hot pressing 100% sulphate wood pulp without the addition of any additive/ adhesive into the solid plastic state. The material shall be free from soluble electrolyte such as chlorides, sulphates and carbonates and also from conducting particles. The material in insulating oil shall have temperature index of atleast 105°C.</p> <p>2. Application : The material is used as insulating blocks, spacer strips, cylinders & other insulating components, barriers etc. in transformers, reactors and capacitors etc.</p> <p>3. Compliance / Properties : The material shall comply with the requirements of the latest edition of IEC: 60641-3-1 (2008) TYPE B 3.1A.</p> <p>4. Dimensions and tolerances : Thickness, width and length of the pressboard shall be stated on the order. The sheet shall be rectangular in shape with the two diagonals being equal. Sheet shall not form parallelogram. Two diagonals of the sheet shall be within ±3 mm.</p> <p>5. Preferred Thickness – 1, 1.5, 2, 3, 4, 5, 6 and 8mm</p> <p>6. Preferred size – 1800 x 3100mm, 2100 x 3200mm (With a tolerance of ±100mm on length & width). However other sheet sizes may be purchased as per requirements.</p> <p>7. Finish – Shall have matt finish with no irregularities.</p> <p>8. Method of tests : IEC: 60641-2</p> <p>9. Sample for test : Four boards of ordered thickness in 500 x 500 mm size shall be supplied for testing and approval.</p> <p>10. Test certificate : Test certificate should contain all properties as per IEC: 60641-3-1 (2008) TYPE B 3.1A, except Plybond resistance. Unless otherwise stated, 3 copies of test certificates shall be supplied along with each consignment. In addition, the supplier shall ensure to send one copy of test certificates alongwith their dispatch documents to facilitate quick clearance of the material.</p> <p>11. Packing & marking : Manufacturer's name/ brand or identification slips with carbon free ink shall be given on each board which shall be compatible with insulating oil to IEC:60296. The boards shall be sealed in high density polyethylene sheets/ suitable packing to prevent ingress of rain water. These boards then shall be packed in a wooden case to avoid damage during transit. Packing shall be marked legibly with the following information - AA 21108 (Rev. 05) : Pressboard - Solid BHEL Order No. Manufacturer's name / Grade / Batch/ Lot no. Thickness, Length & Width of the board Quantity of boards / Net weight/ Gross weight (kg) Date of manufacturer / No. of boards</p>					
Revision : Spec. completely revised inline with International Standard.		Approved : INTERPLANT MATERIAL RATIONALIZATION COMMITTEE – MRC (E)			
Rev. No. 05	Amd.No.	Reaffirmed	Prepared Bhopal	Issued Corp. R&D	Date of 1 st issue Jun 82
July 23	Dt.	Year			

	CORPORATE PURCHASE SPECIFICATION			AA 21109		
				Rev. No. 05		
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<u>PRESSBOARD – LAMINATED FOR ELECTRICAL PURPOSES</u>						
<p>1. General : This specification governs the quality requirements of a very hard and rigid laminated precompressed pressboard made by 100% sulphate wood pulp board characterised by high purity and mechanical strength and capable of being sheared without showing ragged edges. Its surface bears mash marks. The laminates are manufactured by building up laminate of solid precompressed pressboard by hot pressing with casein based adhesive or non-aqueous adhesive, free from extraneous matter in the solid plastic state. The material shall be free from soluble electrolyte such as chlorides, sulphates and carbonates and also from conducting particles. The material in insulating oil shall have temperature index of at least 105°C.</p> <p>2. Application : The material is used as coil spacers, flat washers, edge blocks and clamping rings etc. in transformers, reactors etc.</p> <p>3. Compliance / Properties : The material shall comply with the requirements of the latest edition of IEC: 60763-3-1 TYPE LB 3.1 A.1 or LB 3.1 A.2. Bidder to mentioned type offered.</p> <p>4. Dimensions and tolerances : Thickness, width and length of the pressboard shall be stated on the order. The sheet shall be rectangular in shape with the two diagonals being equal. Sheet shall not form parallelogram. Two diagonals of the sheet shall be within ±5 mm.</p> <p>5. Preferred Thickness – 8, 12, 16, 20, 25, 30, 40, 50mm and above in multiple of 10mm</p> <p>6. Preferred size – 1800 x 3000mm, 2100 x 3100mm (With a tolerance of ±100mm on length & width). However other sheet sizes may be purchased as per requirements.</p> <p>7. Finish – Shall have matt finish with no irregularities.</p> <p>8. Method of tests : IEC: 60763-2</p> <p>9. Sample for test : Three boards of ordered thickness in 500 x 500 mm size shall be supplied for testing and approval.</p> <p>10. Test certificate : Test certificate should contain all properties as per IEC: 60763-3-1 TYPE LB 3.1 A.1 or LB 3.1 A.2., except Flatness. Unless otherwise stated, 3 copies of test certificates shall be supplied alongwith each consignment. In addition, the supplier shall ensure to send one copy of test certificates alongwith their dispatch documents to facilitate quick clearance of the material.</p> <p>11. Packing & marking : Manufacturer’s name or identification slips with carbon free ink shall be given on each board which shall be compatible with insulating oil to IEC:60296. The boards shall be sealed in high density polyethylene sheets/ suitable packing to prevent ingress of rain water. These boards then shall be packed in a wooden case to avoid damage during transit. Packing shall be marked legibly with the following information - AA 21109 (Rev. 05) : Pressboard - Laminated BHEL Order No. Manufacturer’s name / Grade / Batch/ Lot no. Thickness, Length & Width of the board Quantity of boards / Net weight/ Gross weight (kg) Date of manufacturer / No. of boards</p>						
Revision : Spec. completely revised inline with International Standard.				Approved : INTERPLANT MATERIAL RATIONALIZATION COMMITTEE – MRC (E)		
Rev. No. 05	Amd.No.	Reaffirmed	Prepared Bhopal	Issued Corp. R&D	Date of 1 st issue Sep 79	
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1734459/2023/HEP/1/120600 के निर्माण में शामिल और रिपेक्टर के निर्माण में काम आने वाली सामग्री के लिए निर्माता सूची

Component Manufacturers List of Power Transformer Reactor up to 420 KV Class



S.No	मद का नाम / ITEM NAME	निर्माता का नाम/ MANUFACTURER NAME
	KRAFT INSULATING PAPER	WIEDMAN ELECTRICAL, SWITZERLAND
2-B	CREEPE INSULATING PAPER	TOMOEAWA CO. LTD, JAPAN, APPROVAL VALID UP TO 17.08.2023
	CREEPE INSULATING PAPER	CINDUS CORPORATION, USA, (APPROVAL VALID UP TO 12.03.2023)
	CREEPE INSULATING PAPER	WIEDMAN ELECTRICAL, SWITZERLAND
3	CUTTING AND SUPPLY OF INSULATING MATERIAL (SOURCED FROM WEIDMANN, SWITZERLAND) ALONGWITH MOULDED INSULATION COMPONENTS	GOVIK ELECTRICALS LTD, THANE. APPROVAL VALID UP TO 25.02.2023
	CUTTING, SHAPING AND SUPPLY OF INSULATING MATERIAL (PRESS BOARD SOURCED FROM ABB-FIGEOLM, SWEDEN AND DENSIFIED WOOD-FROM POWERGRID APPROVED SOURCE ONLY) ALONG WITH MOULDED INSULATION COMPONENTS	PUCARO FIGEOLM INSULATION KIT CENTRE (PFIKC), HALOL, INDIA- APPROVAL VALID UPTO 05.03.2022
	CUTTING, SHAPING AND SUPPLY OF INSULATING MATERIAL (PRESS BOARD SOURCED FROM ABB-FIGEOLM, SWEDEN AND DENSIFIED WOOD-FROM POWERGRID APPROVED SOURCE ONLY) ALONG WITH MOULDED INSULATION COMPONENTS	ABB POWER GRIDS POLAND
	CUTTING/SHAPING OF INSULATING MATERIAL MOULDED INSULATION COMPONENTS	ENPAY TRANSFORMERS COMPONENTS INDIA PVT LTD, VADODARA (APPROVAL VALID UP TO 23.10.2023)
	CUTTING/SHAPING OF INSULATING MATERIAL (PRESS BOARD)	ROECHLING ENGG. PLASTICS INDIA PVT LTD, VADODARA, APPROVAL VALID UP TO 01.07.2022
	LEAD EXIT	ENPAY , TURKEY ,VALID UP TO 16.01.2022
	LEAD EXIT	ENPAY TRANSFORMERS COMPONENTS INDIA PVT LTD, VADODARA (APPROVAL VALID UP TO 11.04.2022)
	LEAD EXIT	WEIDMAN, SWITZERLAND
	PRECOMPRESSED PRESS BOARD	UMANG BOARDS LTD., JAIPUR (VALID UPTO 20.10.2022, FOR 132kV CLASS)
	PRECOMPRESSED PRESS BOARD	OJI F-TEX CO LTD. JAPAN (VALID UP TO 28.09.2022)
	PRECOMPRESSED PRESS BOARD (ALONG WITH MOULDED INSULATION COMPONENTS)	SENAPATHY WHITELEY – BANGALORE APPROVAL VALID UP TO 13.07.2023
	PRECOMPRESSED PRESS BOARD (ALONG WITH MOULDED INSULATION COMPONENTS)	ABB POWER PRODUCTS & SYSTEMS INDIA LTD., MYSURU (RAMAN BOARD) (APPROVAL VALID UP TO 01.11.2023)
	PRECOMPRESSED PRESS BOARD, INSULATION COMPONENT KITS AND MOULDED COMPONENTS	ABB AB, SWEDEN
	PRECOMPRESSED PRESS BOARD, INSULATION COMPONENT KITS AND MOULDED COMPONENTS	ABB FIGEOLMS , SWEDEN

निर्माता सूची अपडेट की गई: 12.जनवरी.2022

Manufacturers list updated on:12.Jan.2022

1734459/2023/NEP/1/120600 के पीएचटीएम और रिएक्टर के निर्माण में काम आने वाली सामग्री के लिए निर्माता सूची

Component Manufacturers List of Power Transformer Reactor up to 420 KV Class



S.No	मद का नाम / ITEM NAME	निर्माता का नाम/ MANUFACTURER NAME
	PRECOMPRESSED PRESS BOARD, INSULATION COMPONENT KITS AND MOULDED COMPONENTS	CHANGZHOU YINGZHONG ELECTRICAL CO. LTD., CHINA VALID UP TO 19.12.2020
	PRECOMPRESSED PRESS BOARD, INSULATION COMPONENT KITS AND MOULDED COMPONENTS	ENPAY , TURKEY
	PRECOMPRESSED PRESS BOARD, INSULATION COMPONENT KITS AND MOULDED COMPONENTS	PUCARO ELEKTRO-ISOLIERSTOFFE GMBH, GERMANY, APPROVAL VALID UP TO 20.02.2023
	PRECOMPRESSED PRESS BOARD, INSULATION COMPONENT KITS AND MOULDED COMPONENTS	TAIZHOU WEIDMANN HIGH VOLTAGE INSULATION CO.,LTD. APPROVAL VALID UP TO 28.05.2020
	PRECOMPRESSED PRESS BOARD, INSULATION COMPONENT KITS AND MOULDED COMPONENTS	TAIZHOU XINYUAN ELECTRICAL EQUIPMENT CO. LTD, CHINA (APPROVAL VALID UP TO 15.12.2022)
	PRECOMPRESSED PRESS BOARD, INSULATION COMPONENT KITS AND MOULDED COMPONENTS & CORRUGATED BOARD	H WEIDMANN SWITZERLAND
	PROCESSING/CUTTING OF INSULATION MATERIAL (PRESS BOARD)	ENPAY TRANSFORMERS COMPONENTS INDIA PVT LTD, VADODARA, APPROVAL VALID UP TO 26.08.2024
	PROCESSING/CUTTING OF INSULATION MATERIAL (PRESS BOARD)	DAYALOK TRANSFOERMERS PVT LTD, ALLAHABAD, APPROVAL VALID UPTO 14.07.2022
	PROCESSING/CUTTING OF INSULATION MATERIAL (PRESS BOARD)	SABAR INDUSTRIES, VADODARA (APPROVAL VALID UPTO 21.12.2023)
	PROCESSING/CUTTING OF INSULATION MATERIAL (PRESS BOARD)(SOURCING OF PRESSBOARD FROM RAMAN BOARD, MYSORE)	ABB POWER PRODUCTS & SYSTEMS INDIA LTD., HALOL (RAMAN BOARD INSULATION KIT CENTER) APPROVAL VALID UP TO 01.11.2023
4	DENSIFIED LAMINATED WOOD	INNER MANGOLIA ALIHE HUA YANG ELECTRICAL LAMINATION WOOD CO. LTD
	DENSIFIED LAMINATED WOOD	ROECHLING ENGINEERING PLASTICS, GERMANY
	DENSIFIED LAMINATED WOOD	RANCAN SRL, ITALY VALID UPTO 11.04.2022
	DENSIFIED LAMINATED WOOD	PERMALI WALLACE, HOSHANGABAD ROAD, BHOPAL PLANT (APPROVAL VALID UP TO 07.06.2023)
	DENSIFIED LAMINATED WOOD	SURENDRA COMPOSITE PVT. LTD, MANDIDEEP, APPROVAL VALID UP TO 09.12.2024
	DENSIFIED LAMINATED WOOD	WEIDMAN, SWITZERLAND
	DENSIFIED LAMINATED WOOD	DEUTSCHE-HOLZVERDELUNG (DEHONITE), GERMANY
	MILLING AND CUTTING OF DENSIFIED LAMINATED WOOD	ENPAY TRANSFORMERS COMPONENTS INDIA PVT LTD, VADODARA, APPROVAL VALID UP TO 26.08.2024
	MILLING AND CUTTING OF DENSIFIED LAMINATED WOOD	ROECHLING ENGINEERING PLASTIC (I) PVT LTD, SAVLI (APPROVAL UPTO 25.02.2024)
	MILLING AND CUTTING OF DENSIFIED LAMINATED WOOD	DAYALOK TRANSFOERMERS PVT LTD, ALLAHABAD, APPROVAL VALID UPTO 14.07.2022
	MILLING AND CUTTING OF DENSIFIED LAMINATED WOOD	SABAR INDUSTRIES, VADODARA (APPROVAL VALID UPTO 21.12.2023)
	MILLING AND CUTTING OF DENSIFIED LAMINATED WOOD	SURENDRA COMPOSITE PVT. LTD, MANDIDEEP, APPROVAL VALID UP TO 09.12.2024

निर्माता सूची अपडेट की गई: 12.जनवरी.2022

Manufacturers list updated on:12.Jan.2022