

**INX POWER LLP**

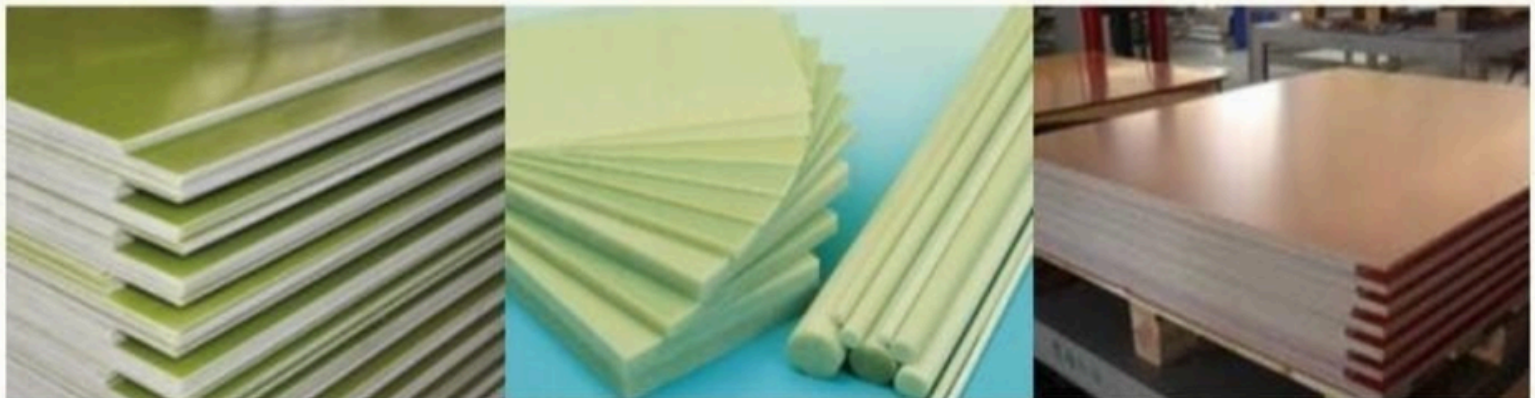







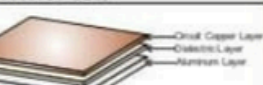
## Epoxy Glass Fiber Sheet

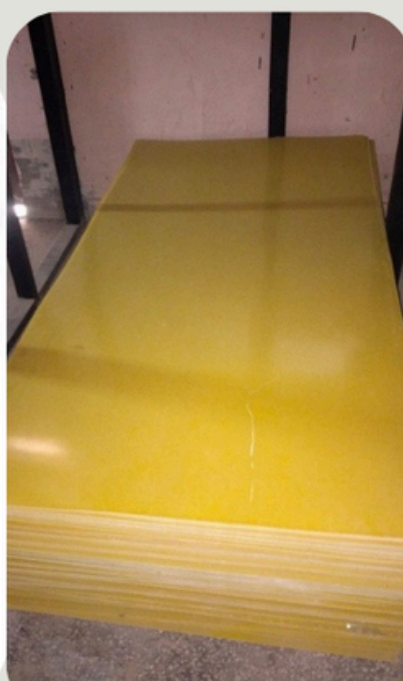
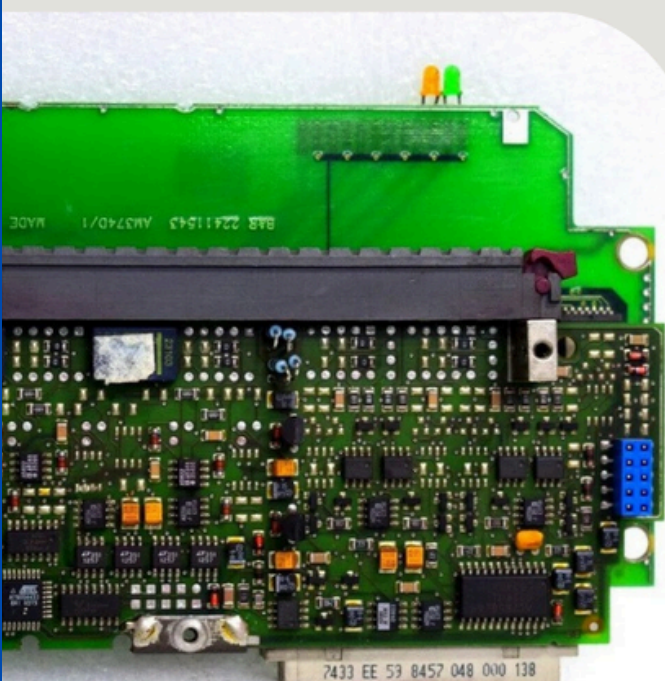
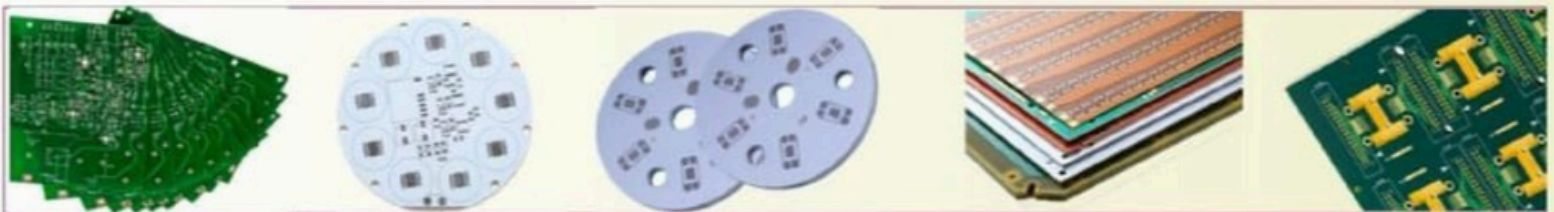
The product adopts 7628 glass fiber cloth impregnated with epoxy resin by hot pressing. It has high mechanical and electrical properties, good heat resistance and humidity resistance. Products are widely used in mechanical, electronic and electrical equipment as components of insulation parts. The products have higher mechanical properties, electrical properties and high thermal mechanical strength.

IEC	NEMA	Characteristic
EPGC201	-	High mechanical and electrical properties, good heat resistance property, moisture resistance products.
EPGC202	FR4	Performance is similar to EPGC201; the flame retardance level is improved to ULF-V0.
EPGC203	G10	Performance is similar to EPGC201 and it has advanced heat resistance, high mechanical strength at high temperatures, excellent electrical and anti-static properties.
EPGC204	FR5	Performance is similar to EPGC203; the flame retardance level is improved to ULF-V0.
EPGC306	G11	Performance is similar to EPGC203 and its proof tracking index is improved.
EPGC308	-	Performance is similar to EPGC203, improved heat resistance, mechanical stability at high temperatures.
SIGC202, 350, 352, BMIGC301/302, PAIGC301		The product has the temperature grade of class H. It has higher mechanical strength, heat resistance, dielectric properties, permeability, radiation resistance and flame resistance, which can be used for H-class motor and electrical appliance as components of insulation parts.
PFCP202		This product is made of insulating paper impregnated with phenolic resin and is formed by baking and hot pressing. It has high mechanical and electrical properties. This product can be used as components of insulation parts of motors with higher mechanical performance and electrical equipment. It can also be used in the oil of trans-former.
PFCC201/202/203/205		The product is made of cotton impregnated with phenolic resin and is formed by hot pressing, which has strong mechanical and electrical properties.
Semiconductor Laminated Glass Fiber Sheet		This product has high mechanical and semiconductor properties and good heat resistance, and it is suitable for middle and large motor slot wedge as anti-corona material.
Magnetic Laminated Glass Fiber Sheet		Temperature grade: Class F. This product has high mechanical property, heat resistance and permeability, which is used as the raw material of magnetic slot wedge and widely used on large motors and wind turbines. Density: 2.4~2.5g/m <sup>3</sup> . Relative permeability: (80KA/m)≥3.0



## Printed Circuit Boards (PCBs)

Description	Single Sided PCB	Double Sided PCB	Multilayer PCB	Metal Core
General Information	Single Sided PCBs contain only one layer of conductive material and are best suited for low density designs. Single sided PCB'S have been around since the late 1950s and still dominate the world market in sheer piece volume. Single-sided printed circuit boards are easily designed and quickly manufactured. They serve as the most cost effective platform in the industry.	Double Sided PCBs (also known as Double-Sided Plated Thru) circuits are the gateway to higher technology applications. They allow for closer (and perhaps more) routing traces by alternating between a top and bottom layer using vias. Today, double sided printed circuit board technology is perhaps the most popular type of PCB in the industry	Multilayer PCB is a circuit board that has more than two layers. Unlike a Double-Sided PCB which only has two conductive layers of material, all multilayer PCBs must have at least three layers of conductive material which are buried in the center of the material	Aluminum Printed Circuit Boards Contain a Thin Layer of Thermally Conductive Dielectric Material that Transfers Heat. There are many names for these products: Aluminum clad, Metal clad printed Circuit Board (MCPCB), Insulated Metal Substrate (IMS or IMPCB). Thermally conductive PCBs.
Image				
Process	One thin layer of thermally conductive but electrically insulating dielectric is laminated with copper. Soldermask is usually applied on top of the copper.	One thin layer of thermally conductive but electrically insulating dielectric is laminated with copper. Soldermask is usually applied on top of the copper and same copper lamination & Soldermask on either side.	Alternating layers of prepreg and core materials (Epoxy Glass, Exotic Ceramics or Teflon) are laminated together under high temperature and pressure to produce Multilayer PCBs. Conductors are completely encapsulated by resin, and the adhesive that holds the layers together are properly melted and cured.	A thin layer of thermally conductive but electrically insulating dielectric is laminated between a metal base and a copper foil. The copper foil is etched into the desired circuit pattern and the metal base draws heat away from this circuit through the thin dielectric.
Benefits	<ul style="list-style-type: none"> <li>- Ideal for simple low-density designs</li> <li>- Lower cost, especially for high volume orders</li> <li>- Lower probability of manufacturing issues</li> <li>- Popular, common, and easily understood by most PCB manufacturers</li> </ul>	<ul style="list-style-type: none"> <li>- More flexibility for designers</li> <li>- Increased circuit density</li> <li>- Relatively lower costs</li> <li>- Intermediate level of circuit complexity</li> <li>- Reduced board size (which can reduce costs)</li> </ul>	<ul style="list-style-type: none"> <li>- Higher assembly density</li> <li>- Smaller size, increased flexibility</li> <li>- Easier incorporation controlled impedance features.</li> <li>- EMI shielding through careful placement of power and ground layers.</li> <li>- Reduces the need for interconnection wiring harnesses (reduces overall weight)</li> </ul>	<ul style="list-style-type: none"> <li>- superior Heat dissipation than FR-4 constructions.</li> <li>- The dielectrics used are typically 5 to 10 times as thermally conductive as conventional epoxy-glass and a tenth of the thickness</li> </ul>
Uses	<ul style="list-style-type: none"> <li>- Power supplies, Relays (automotive and industrial), Timing circuits, Sensor products</li> <li>- LED lighting, Radio and stereo equipment, Packaging equipment, Surveillance</li> <li>- Calculators, Printers, Coffee makers, Vending machines, Solid state drives</li> <li>- Camera systems</li> </ul>	<ul style="list-style-type: none"> <li>- Industrial controls, Power supplies, Converters, Control relays, Instrumentation</li> <li>- Regulators, UPS systems, Power conversion</li> <li>- HVAC, LED lighting, Hard drives, Printers</li> <li>- Phone systems, Power monitoring</li> <li>- Automotive dashboards, Line reactors</li> <li>- Test equipment, Amplifiers, Traffic systems</li> <li>- Vending machines</li> </ul>	<ul style="list-style-type: none"> <li>- Computers, File servers, Data storage</li> <li>- Signal transmission, Cell phone transmission, Cell phone repeaters</li> <li>- GPS technology, Industrial controls</li> <li>- Satellite systems, Hand held devices</li> <li>- Test equipment, X-ray equipment</li> <li>- Heart monitors, Cat scan technology</li> <li>- Atomic accelerators, Central fire alarm systems, Fiber optic receptors, Nuclear detection systems, Space probe equipment</li> <li>- Weather analysis</li> </ul>	<ul style="list-style-type: none"> <li>- Power Converters</li> <li>- LEDs</li> <li>- Automotive</li> <li>- RF Companies</li> </ul> <p>While a single layer construction is the simplest, other configuration options are also available on request.</p>





**FIBER WASHER**  
AS PER CUSTOMER  
REQUIREMENT

**FIBER SPACER**  
AS PER CUSTOMER  
REQUIREMENT



**FIBER GLASS TAPE**  
1 INCH X 40 MTR X 7MIL  
2 INCH X 40 MTR X 7MIL

**RESIN GLASS TAPE**  
WIDTH-38MM / 50MM



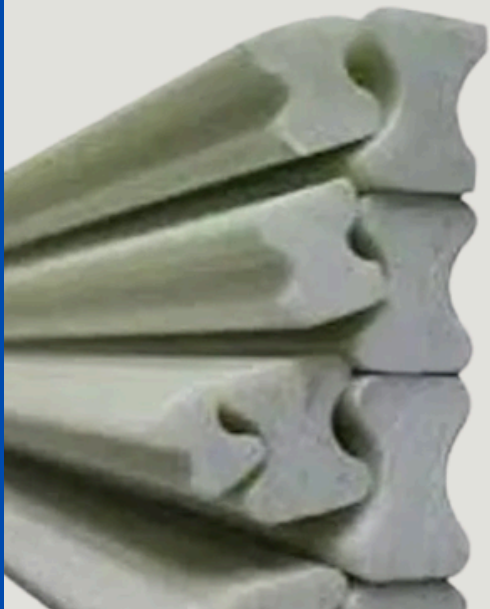


# **RADIATOR VALVES**

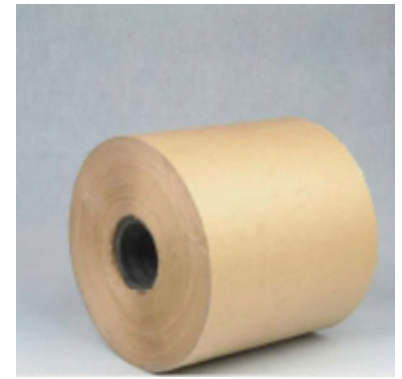
**GROVE TYPE  
PLAIN TYPE  
80NB**

# **GATE VALVES**

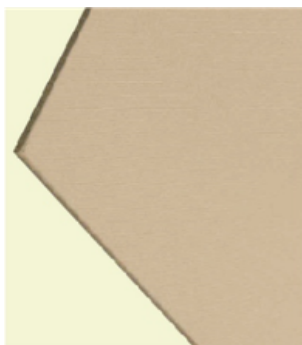
**SINGLE SIDE GATE VALVE  
DOUBLE SIDE GATE VALVE  
CAST IRON**



**GLASS DOG BONES  
AS PER CUSTOMER  
REQUIREMENT**

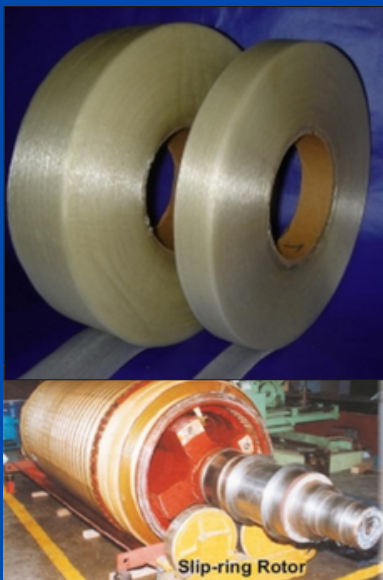


Property		UNIT	PCB 3.0 mm	PCB 1.0 mm
Standard			IEC:60641: TYPE B.3.1A	
Thickness		mm.	3.00 (±5%)	1.00 (±7.5%)
Apparent Density		g/cm <sup>3</sup>	1.10 -1.25	1.00 -1.20
Tensile Strength	MD	Mpa	Min 105	Min 100
	CMD	Mpa	Min 80	Min 75
Elongation	MD	%	Min 2.5	Min 2.5
	CMD	%	Min 3.5	Min 3.5
Compressibility in Air		%	Max 7.5	Max 10
Reversible Compressibility in Air		%	Min 50	Min 45
Shrinkage in Air	MD	%	1.5 Max	0.5 Max
	CMD	%	0.7 Max	0.7 Max
	PD	%	6.0 Max	1.6 6.0 Max
Plybond Resistance		N/30mm	Min 250	Min 250
Moisture Content		%	Max 6.0	Max 6.0
Ash Content		%	Max 0.7	Max 0.5
Conductivity of Aqueous Extract		mS /m	Max 6.0	Max 6.0
PH of Aqueous Extract		-	6 - 9	6 - 9
Oil Absorption		%	Min 9	Min 11
Electrical Strength (in air) BDV		KV/mm	Min 12	Min 12
Electrical Strength (in oil) BDV		KV/mm	Min 35	Min 45





Designation	Code	DDP 3 Mil	DDP 5 Mil	DDP 7 Mil	DDP 10 Mil
Reference Standard		IEC 60641-2:2002			
Tolerance	Mm	±0.005	±0.007	±0.010	±0.010
Density	g/cm <sup>3</sup>	0.90-1.10			
Water Content	%	4.0-8.0			
pH from Water Extract Oil	N/A	6.5-8.5			
Resin Layer (Approx.)	µm	20-25			
Chemical Family	Resin	Epoxy			
Reinforcement Type	Paper	Natural-coloured press-paper made of unbleached sulphate cellulose			
Colour		Natural, printed resin may be Red or Natural Color			
Tensile Strength	MPa	≈75	≈75	≈75	≈75
	MD	≈35	≈35	≈35	≈35
	CMD				
Shrinkage	%	≈1	≈1	≈1	≈1
	MD	≈1.5	≈1.5	≈1.5	≈1.5
	CMD				
Bonding Strength	kPa	≈650	≈650	≈650	≈650
Breakdown Voltage	kV	≈0.7	≈1.10	≈1.60	≈2.25
Breakdown Voltage 90°C, Oil	kV	≈4.0	≈7.0	≈9.0	≈11.0
Conductivity of the Aqueous Extract	mS/m	≈10.0	≈10.0	≈10.0	≈10.0



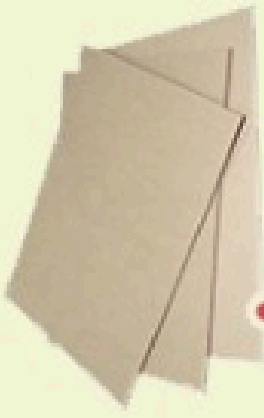
Property	Value
Thermal Class	F & H
Thermal Rating of Banding	200 Deg. C Max
Yarn Used	E Glass-75 ½ or equivalent
Thickness of Ends	0.3 mm approx.
Width Tolerance	±10%
No. of Yarns	30 ±1/cm
Tensile Strength	≈200Kg/cm
Resin Content	Available from 24% to 30% as per requirement
Curing Cycle	5Hrs at 150°C. Once the job reaches the temp
Arc Resistance (ASTM D495)	≈120 sec.
Width Options (mm)	10,20,25,30,40,50
Length per roll options (mtrs)	100, 200, 1000, 1500
Thermal Class options	Class F-155°C, Class H-200°C, 220°C



**DDP**



**PRE-COMPRESSED BOARD**



**OIL DUCT STRIP**



**ELECTRICAL LAMINATED WOOD**



**ELECTRICAL POLYESTER SHRINKABLE TAPE**



**UNIDIRECTIONAL BINDING TAPE**



**ELECTRICAL COTTON CLOTH TAPE**



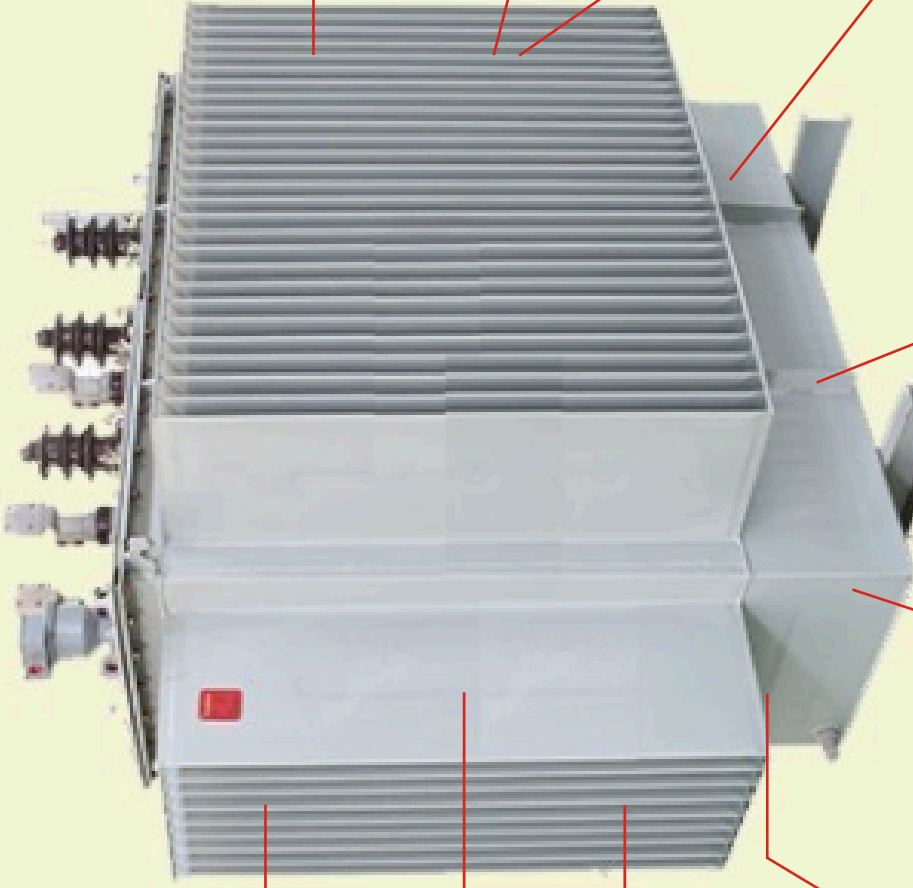
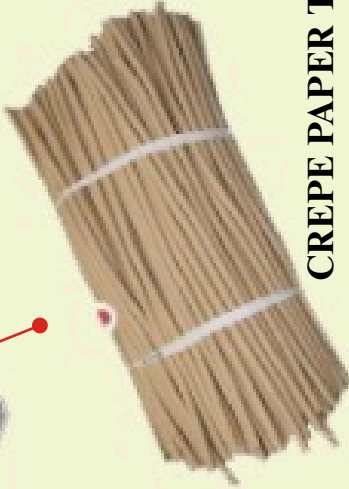
**PHENOLIC PAPER TUBE**



**FIBER REINFORCED PAPER TAPE**



**CREPE PAPER TUBES**





## ABOUT US

**INX Power is a trusted manufacturer and supplier of transformer components and electrical insulation materials. We provide all types of insulation materials for Dry type transformers and oil type transformers including insulation kits, Our focus is on delivering high-quality, durable, and reliable solutions for the power and electrical industry.**

**We are committed to maintaining quality standards and building long-term relationships with our customers.**



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