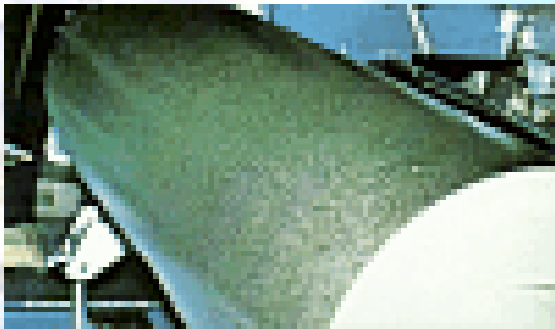


PAPER MICANITE

Paper Micanite is a sheet material/shaped material made from thin flakes of Mica that have been ground up & converted to pulp like paste, and pressed into sheet form, and heated under pressure to bond tiny mica flakes together. Mica flakes by its natural cohesive force stick together to form uniform sheet like paper. Reconstituted mica evolves more gas than the original mica, up to 500 °C. However, at 800 °C, natural mica



becomes more gassy than reconstituted mica. Reconstituted mica is available in Sheet and Tape form with various configurations of binders & process as per thermal class ratings, and is used for insulators. It has a dielectric strength

of 450~900 volts per mil. The properties of paper Micanite are highly reproducible in sheet form.

Paper Micanite provide in particular heat resistivity and electrical properties characteristic of mica and furthermore the materials retain better uniform thickness compared with the natural mica or Splitting Micanite. They perform excellent flexibility and taping capabilities, therefore taping onto coils can proceed easily.



HEATER PLATE

Heater Plate is processed by stacking mica paper to required thickness and bonded with a high temperature resisting Silicone resin and set to plate form by applying hot press. The resin is fully cured to form dense and rigid sheets so that the sheets can be introduced to shearing, punching or stamping to any required size without peeling.



The product is heat proof & flame resistant with high mechanical strength excellent insulation properties under loaded high temperature. It does not emit either smoke or odor during heating.

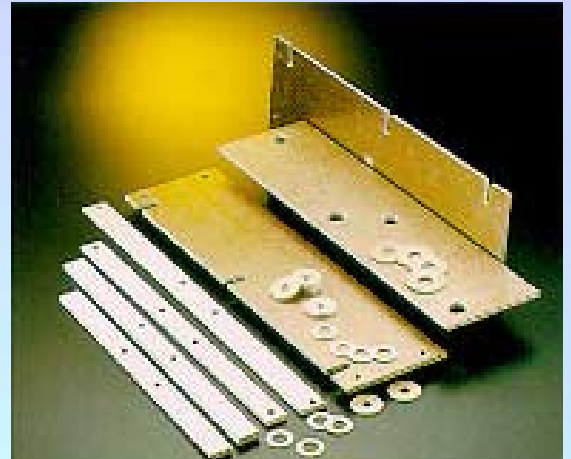
They can be widely applied to reproduce winding boards for heating elements used in domestic appliances i.e. flatiron, bread toaster, kettle, hair dryer etc., Cover plates, High temperature spacers & washers.

Typical Properties

Description		HLM 501	HLP 501	HLF 501
Mica Paper		Muscovite	Phlogopite	Synthetic
Binder Resin		Silicone	Silicone	Silicone
Thickness		0.2~ 2.0mm	0.2~ 2.0mm	0.2~ 2.0mm
Thickness	Average \pm	0.02	0.02	0.02
Tolerance	Individual \pm	0.03~0.04	0.03~0.04	0.03~0.04
Density g/cm ²		2.0~2.5	2.0~2.3	2.0~2.2
Mica Content % App.		86~90	86~90	86~90
Compressibility at 200 °C	Under 300 kgf/cm ²	0.5~1.5 %	0.5~1.5 %	0.5~1.0 %
Elastic Compression %		1.0~1.5	1.0~1.5	1.0~1.2
Plastic Deformation %		0.6~1.2	0.6~1.2	0.6~1.0
Punchability		Clean Edge	Clean Edge	Clean Edge
Dielectric Strength kv/mm		> 20	> 25	> 30
Temperature Endurance		550 °C	850 °C	1250 °C

PUNCHING PLATE

Punching Plate is processed by stacking mica paper to required thickness and bonded with Silicone or Epoxy resin and set to plate form by applying hot press. The resin is fully cured to form dense and rigid sheets so that the sheets can be introduced to machining, shearing, punching or stamping to any required size without peeling.



The product is with high mechanical strength, high thermal resistance and excellent insulation properties.

They can be widely applied to reproduce punched insulating parts such as Plate, Separator, Disc, Spacer and Washers.

Typical Properties

Description		PLM 501	PLP 501	PLF 501
Mica Paper		Muscovite	Phlogopite	Synthetic
Binder Resin		Epoxy	Silicone	Silicone
Thickness		0.2~2.0 mm	0.2~2.0mm	0.2~2.0mm
Thickness	Average \pm	0.02	0.02	0.02
Tolerance	Individual \pm	0.03~0.04	0.03~0.04	0.03~0.04
Density g/cm ²		2.0~2.5	2.0~2.3	2.0~2.2
Mica Content % App.		86~90	86~90	86~90
Compressibility at 200 °C	Under 300 kgf/cm ²	0.5~1.5 %	0.5~1.5 %	0.5~1.0 %
Elastic Compression %		1.0~1.5	1.0~1.5	1.0~1.2
Plastic Deformation %		0.6~1.2	0.6~1.2	0.6~1.0
Punchability		Clean Edge	Clean Edge	Clean Edge
Dielectric Strength kv/mm		> 20	> 25	> 30
Temperature Endurance		550 °C	850 °C	1250 °C

PROFILE PLATE

Profile Plate is processed by stacking mica paper to required thickness and bonded with Silicone or Epoxy resin and set to plate form by applying hot press. The resin is fully cured to form dense and rigid sheets so that the sheets can be introduced to machining, profiling or sawing to any required size without peeling.



The product is with high mechanical strength, high thermal resistance and excellent insulation properties.

They can be widely applied to reproduce machined or profiled insulating parts such as Plate, Separator, Disc, Spacer, Washers and Dynamic Break Resistors.

Typical Properties

Description		PLLM 501	PLLP 501	PLLF 501
Mica Paper		Muscovite	Phlogopite	Synthetic
Binder Resin		Epoxy	Silicone	Silicone
Thickness		3 ~ 100 mm	3 ~ 100 mm	3 ~ 100 mm
Thickness	Average \pm	0.2	0.2	0.2
Tolerance	Individual \pm	0.3~0.4	0.3~0.04	0.3~0.4
Density g/cm ²		2.0~2.5	2.0~2.3	2.0~2.2
Mica Content % App.		82~86	82~86	82~86
Compressibility at 200 °C	Under 300 kgf/cm ²	0.5~1.5 %	0.5~1.5 %	0.5~1.0 %
Elastic Compression %		1.0~1.5	1.0~1.5	1.0~1.2
Plastic Deformation %		0.6~1.2	0.6~1.2	0.6~1.0
Machineability		Clean Edge	Clean Edge	Clean Edge
Dielectric Strength kv/mm		> 20	> 25	> 30
Temperature Endurance		550 °C	850 °C	1250 °C

SEGMENT PLATE

Segment Plate is processed by stacking mica paper to required thickness and bonded to each other with a high temperature resisting EPOXY resins. It is then set to plate form by applying hot press. The used binder resin is controlled to maintain a stable and fully cured state to form dense and rigid sheets so that the sheets can be introduced to machining, shearing, punching or stamping to any required size without peeling. They are further introduced to surface sanding to calibrate precision thickness.



The Commutator is the most important component in electric motors. Since the very high mechanical stresses that a Commutator has to withstand at varying temperature, high-class insulating material should be incorporated and here is the choice with Segment Laminates.

Typical Properties

Description		SLM 501	SLP 501	SLF 501
Mica Paper		Muscovite	Phlogopite	Synthetic
Binder Resin		Epoxy	Epoxy	Silicone
Thickness		0.2~1.5mm	0.2~1.5 mm	0.2~1.5 mm
Thickness	Average \pm	0.02	0.02	0.02
Tolerance	Individual \pm	0.03~0.04	0.03~0.04	0.03~0.04
Density g/cm ²		2.0~2.5	2.0~2.3	2.0~2.2
Mica Content % App.		86~90	86~90	86~90
Compressibility at 200 °C	Under 300 kgf/cm ²	0.5~1.5 %	0.5~1.5 %	0.5~1.0 %
Elastic Compression %		1.0~1.5	1.0~1.5	1.0~1.2
Plastic Deformation %		0.6~1.2	0.6~1.2	0.6~1.0
Punchability		Clean Edge	Clean Edge	Clean Edge
Dielectric Strength kv/mm		> 20	> 25	> 30
Temperature Endurance		250 °C	250 °C	1250 °C

MOLDING PLATE

Molding Plate is processed by stacking mica paper to required thickness and bonded to each other with a desired thermal class thermoplastic resin. It is then set to plate form by applying hot press. The temperature for used binder resin is controlled and maintained to a stable environment and fully cured to form dense and flexible sheets.



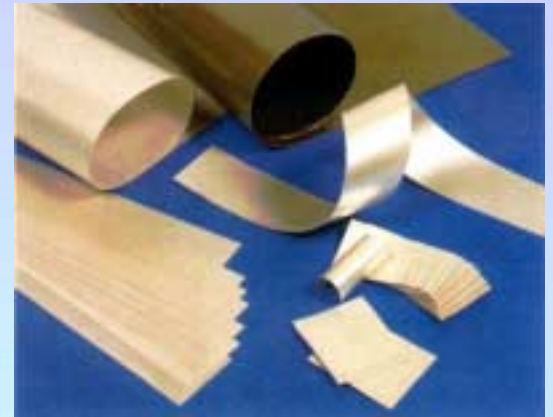
Flexible laminates are used for insulation at critical shape places as wrap insulation, separators & layer insulation. It is also used in assembly of flexible heating elements for Hair Driers, Microwave oven etc. as winding cards.

Typical Properties

Description		FLM 501	FLP 501	FLF 501
Mica Paper		Muscovite	Phlogopite	Synthetic
Binder Resin		Silicone	Silicone	Silicone
Thickness		0.2~1.5mm	0.2~2.0mm	0.2~2.0mm
Thickness	Average ±	0.02	0.02	0.02
Tolerance	Individual ±	0.03~0.04	0.03~0.04	0.03~0.04
Density g/cm ²		2.0~2.5	2.0~2.3	2.0~2.2
Mica Content % App.		86~90	86~90	86~90
Compressibility at 200 °C	Under 300 kgf/cm ²	0.5~1.5 %	0.5~1.5 %	0.5~1.0 %
Elastic Compression %		1.0~1.5	1.0~1.5	1.0~1.2
Plastic Deformation %		0.6~1.2	0.6~1.2	0.6~1.0
Punchability		Clean Edge	Clean Edge	Clean Edge
Dielectric Strength kv/mm		> 20	> 25	> 30
Temperature Endurance		550 °C	850 °C	1250 °C

FLEXIBLE PLATE

Flexible Plate is processed by stacking mica paper to required thickness and bonded to each other with a desired thermal class thermoplastic resin. It is then set to plate form by applying hot press.



The temperature for used binder resin is controlled and maintained to a stable environment and fully cured to form dense and flexible sheets.

Flexible laminates are used for insulation at critical shape places as wrap insulation, separators & layer insulation. It is also used in assembly of flexible heating elements for Hair Driers, Microwave oven etc. as winding cards.

Typical Properties

Description		FLM 501	FLP 501	FLF 501
Mica Paper		Muscovite	Phlogopite	Synthetic
Binder Resin		Silicone	Silicone	Silicone
Thickness		0.2~1.5mm	0.2~2.0mm	0.2~2.0mm
Thickness	Average ±	0.02	0.02	0.02
Tolerance	Individual ±	0.03~0.04	0.03~0.04	0.03~0.04
Density g/cm ²		2.0~2.5	2.0~2.3	2.0~2.2
Mica Content % App.		86~90	86~90	86~90
Compressibility at 200 °C	Under 300 kgf/cm ²	0.5~1.5 %	0.5~1.5 %	0.5~1.0 %
Elastic Compression %		1.0~1.5	1.0~1.5	1.0~1.2
Plastic Deformation %		0.6~1.2	0.6~1.2	0.6~1.0
Punchability		Clean Edge	Clean Edge	Clean Edge
Dielectric Strength kv/mm		> 20	> 25	> 30
Temperature Endurance		550 °C	850 °C	1250 °C

GASKET PLATE

Gasket Plate is processed by stacking mica paper to required thickness and bonded to with silicone resin. It is then set to plate form by applying hot press under stable environment and fully cured to form dense and flexible sheets.



It is 100% incombustible and resistant to tracking and electrical erosion. They possess exceptional dielectric strength, high mechanical modulus, and high chemical resistance and are natural non-toxic product.

Besides other industrial applications, Gasket laminates are used for reproducing high temperature gaskets for use in exhaust system collectors and silencers of automobiles.

Typical Properties

Description		GLM 501	GLP 501	GLF 501
Mica Paper		Muscovite	Phlogopite	Synthetic
Binder Resin		Silicone	Silicone	Silicone
Thickness		0.2~1.5mm	0.2~2.0mm	0.2~2.0mm
Thickness	Average ±	0.02	0.02	0.02
Tolerance	Individual ±	0.03~0.04	0.03~0.04	0.03~0.04
Density g/cm ²		2.0~2.5	2.0~2.3	2.0~2.2
Mica Content % App.		86~90	86~90	86~90
Compressibility at 200 °C	Under 300 kgf/cm ²	0.5~1.5 %	0.5~1.5 %	0.5~1.0 %
Elastic Compression %		1.0~1.5	1.0~1.5	1.0~1.2
Plastic Deformation %		0.6~1.2	0.6~1.2	0.6~1.0
Punchability		Clean Edge	Clean Edge	Clean Edge
Dielectric Strength kv/mm		> 20	> 25	> 30
Temperature Endurance		550 °C	850 °C	1250 °C

REINFORCED PLATE

Reinforced Plate is processed by stacking mica paper to desired thickness and bonded to each other with a high temperature resisting resins on glass cloth reinforcement. It is then set to sheet form by applying hot press. The used binder resin is controlled to maintain a stable and fully cured state to form rigid and dense plates and semi cured state (B Stage) to form dense and flexible sheets.



Major applications of the material are to wrapping material for crucible winding boards, as a protective barrier during the sintering of crucible obtained by the introduction of molten metal, insulation covering in transformer and coil.

Typical Properties

Description		RLM 501	RLP 501	RLF 501
Mica Paper		Muscovite	Phlogopite	Synthetic
Binder Resin		Silicone	Silicone	Silicone
Thickness		0.2~1.5mm	0.2~5.0mm	0.2~5.0mm
Thickness	Average \pm	0.02	0.02	0.02
Tolerance	Individual \pm	0.03~0.04	0.03~0.04	0.03~0.04
Density g/cm ²		2.0~2.5	2.0~2.3	2.0~2.2
Mica Content % App.		86~90	86~90	86~90
Compressibility at 200 °C	Under 300 kgf/cm ²	0.5~1.5 %	0.5~1.5 %	0.5~1.0 %
Elastic Compression %		1.0~1.5	1.0~1.5	1.0~1.2
Plastic Deformation %		0.6~1.2	0.6~1.2	0.6~1.0
Punchability		Clean Edge	Clean Edge	Clean Edge
Dielectric Strength kv/mm		> 20	> 25	> 30
Temperature Endurance		550 °C	850 °C	1250 °C

INSULATING TAPE

Paper Mica tape is processed by stacking mica paper to desired thickness and bonded to each other with a high temperature resisting resins on glass cloth reinforcement backing material. It is then set to sheet form by applying hot press being passed through heated rollers. They are produced in rolls and slitted to required width.



When the applied layers of Mica Paper Tape are subjected to heat and pressure, the resin flows before gelling and then curing to give a sealed flexible structure of high dielectric and mechanical strength. Major applications of the material are cable, motor, and transformer layer insulation.

Description		Unit	Muscovite	Phlogopite	Synthetic
Thickness		mm	0.12 ~ 0.18	0.12 ~ 0.18	0.12 ~ 0.18
Av. Thick. Tolerance		mm	+0.02	+0.02	+0.02
Weight Approx		g/m^2	165 ~ 265	165 ~ 265	165 ~ 265
Mica Content		g/m^2	120 ~ 160	120 ~ 160	120 ~ 160
Glass Cloth Content		g/m^2	28 ~ 56	28 ~ 56	28 ~ 56
Binder Content		%	10 ~ 14	10 ~ 14	10 ~ 14
Volatile Content		%	1	1	1
Tensile Strength		N/cm	60	60	60
Flexibility		mm	1.5-3.5	1.5-3.5	1.5-3.5
Dielectric Strength	Average	Kv /mm	13-18	15- 20	20 - 25
	Minimum	Kv /mm	10	15	20
Volume resistance		$\Omega \text{ cm}$	1×10^{10}	1×10^{10}	1×10^{10}
Flame-Resistance		At 600V	90 Minutes	110 Minutes	150 Minutes
Temperature		$^{\circ}\text{C}$	550	850	1250
Rewinding Property			No false adhesions.		
Bonding Property			No separation of Mica Foil.		

FORMED PARTS

Mica Paper Formed parts are produced by hot forming the Molding Mica Laminates with special moulds in any shape or size Customized to specific drawings.

Major applications in insulation of Grid and rheostat rods, railway and induction-motor brush holder studs, collector studs, carbon-brush supports, high voltage cables, conductor bars, slot linings of any cross-section, bobbins, collars, Commutator sleeves, dry bushings, slip-ring leads, resistance boxes, X-ray equipments, panels, bush bars, high potential rods and terminals, furnaces, switchgears, circuit breakers, transformers, E.O.T. cranes and trolleys, metallic pivots etc. They are also used as spacers, supports and bushes of electrical resistances in electro domestic and industrial equipments and heavy loaded machines.



Typical Properties

Description		MLM 502	MLP 502	MLF 502
Mica Paper		Muscovite	Phlogopite	Synthetic
Binder Resin		Silicone	Silicone	Silicone
Thickness		0.2~1.5mm	0.2~5.0mm	0.2~5.0mm
Thickness	Average ±	0.02	0.02	0.02
Tolerance	Individual ±	0.03~0.04	0.03~0.04	0.03~0.04
Density g/cm ²		2.0~2.5	2.0~2.3	2.0~2.2
Mica Content % App.		86~90	86~90	86~90
Compressibility	< 300 kgf/cm ²	0.5~1.5 %	0.5~1.5 %	0.5~1.0 %
Elastic Compression %		1.0~1.5	1.0~1.5	1.0~1.2
Plastic Deformation %		0.6~1.2	0.6~1.2	0.6~1.0
Punchability		Clean Edge	Clean Edge	Clean Edge
Dielectric Strength kv/mm		> 20	> 25	> 30
Temperature Endurance		550 °C	850 °C	1250 °C

PUNCHED PARTS

Paper Micanite Plate Punched Parts are produced by machining, shearing, stamping, or punching Heater Plate, Segment Plate, Punching Plate, Gasket Plate, Molding Plate, Reinforced Plate or Flexible Plate in any shape or size fully Customized to specific drawings. Critical shape and designs can easily be accommodated.



It is mainly used as insulating Barrier, Insert, Washer, Disc, Wire Winding Card, Cover Plate etc.



Typical Properties

Description		MLM 502	MLP 502	MLF 502
Mica Paper		Muscovite	Phlogopite	Synthetic
Binder Resin		Silicone	Silicone	Silicone
Thickness		0.2~100mm	0.2~100mm	0.2~100mm
Thickness	Average ±	0.02	0.02	0.02
Tolerance	Individual ±	0.03~0.04	0.03~0.04	0.03~0.04
Density g/cm ²		2.0~2.5	2.0~2.3	2.0~2.2
Mica Content % App.		86~90	86~90	86~90
Compressibility at 200 °C	Under 300 kgf/cm ²	0.5~1.5 %	0.5~1.5 %	0.5~1.0 %
Elastic Compression %		1.0~1.5	1.0~1.5	1.0~1.2
Plastic Deformation %		0.6~1.2	0.6~1.2	0.6~1.0
Punchability		Clean Edge	Clean Edge	Clean Edge
Dielectric Strength kv/mm		> 20	> 25	> 30
Temperature Endurance		550 °C	850 °C	1250 °C