

PHLOGOPITE / SINGLE-SIDE GLASS

Phlogopite Mica Tape

Designed for fire-resistant cables

Phlogopite mica paper reinforced on one side with non-alkaline glass fabric, bonded with high-temperature resistant silicone resin.



0.10-0.14 mm
NOMINAL THICKNESS

5-1000 mm
AVAILABLE WIDTHS

>1.0 kV/layer
P80G32A DIELECTRIC

750-900 °C
TEMPERATURE RESISTANCE

• STANDARD FIRE-PERFORMANCE MATERIAL

Established protection for fire-resistant cable production

The phlogopite mica layer forms a heat-resistant dielectric barrier around the conductor, helping maintain electrical separation during fire exposure. Single-side glass reinforcement provides strength and flexibility for consistent application.

Typical applications

For fire-resistant **power and control cables**, and **instrumentation and signalling cables** where continued circuit operation is important.

Typical uses include fire alarms, emergency lighting and emergency power circuits in public buildings, underground railways, power stations and industrial plants.

Processing and material selection

A cost-effective standard option for high-speed taping, particularly on larger conductors using horizontal machines. The flexible glass-backed construction supports smooth wrapping and is compatible with cable extrusion processes using elastomers and silicone rubbers.

CTUK provides material-selection and cable-construction support to manufacturing and technical teams at no extra cost.

Performance advantages

High thermal resistance

Manufacturer-stated temperature resistance: 750-900 °C.

Fire-resistant insulation

Mica helps maintain electrical separation during fire exposure.

Strength and flexibility

Glass reinforcement supports smooth, high-speed wrapping.

Extrusion compatibility

For cable designs using elastomers and silicone rubbers.

Halogen-free construction

Supports the design of halogen-free fire-resistant cables.

Chemical resistance

Mica offers acid, alkali and radiation resistance.

WIDTH

5-1000 mm

Custom slit widths on request

CORE IDS

76 / 100 / 120 mm

Standard core options

WINDING

Pads or spools

Lengths and dimensions to suit your requirements

Technical data

Phlogopite mica tape / six standard grades

Single-side glass-reinforced construction

Mica paper bonded to glass fabric with silicone resin

PHLOGOPITE MICA PAPER

SILICONE RESIN BOND / IMPREGNATION

NON-ALKALINE GLASS FABRIC

Thermal resistance

Temperature resistance: 750-900 °C

Mechanical support

Glass fabric reinforcement for processing

• PHYSICAL AND ELECTRICAL PROPERTIES

PROPERTY	UNIT	P80G32A	P90G32A	P100G32A
Nominal thickness	mm	0.10 ±0.015	0.11 ±0.015	0.11 ±0.015
Total substance	g/m ²	127 ±11	140 ±13	148 ±11
Mica content	g/m ²	80 ±5	90 ±8	100 ±5
Glass content	g/m ²	32 ±3	32 ±3	32 ±3
Binder content	g/m ²	15 ±3	21 ±5	16 ±3
Dielectric strength	kV/layer	>1.0	>1.1	>1.2
Tensile strength	N/cm	>80	>120	>120
Thermal conductivity	W/m°C	0.2-0.25	0.2-0.25	0.2-0.25

PROPERTY	UNIT	P120G32A	P140G32A	P160G32A
Nominal thickness	mm	0.125 ±0.015	0.13 ±0.015	0.14 ±0.015
Total substance	g/m ²	172 ±11	193 ±11	216 ±14
Mica content	g/m ²	120 ±5	140 ±5	160 ±8
Glass content	g/m ²	32 ±3	32 ±3	32 ±3
Binder content	g/m ²	20 ±3	21 ±3	24 ±3
Dielectric strength	kV/layer	>1.2	>1.4	>1.4
Tensile strength	N/cm	>120	>120	>120
Thermal conductivity	W/m°C	0.2-0.25	0.2-0.25	0.2-0.25

SUPPLY LENGTHS

Pads: 300-2000 m | Spools: 2000-20,000 m

Custom sizes, slit widths and winding styles available on request.

Temperature resistance: 750-900 °C (manufacturer stated).
Finished-cable fire performance depends on the complete construction and testing.