

# Insulect Silicone Mica HP5

## SILICONE MICA LAMINATE

Rigid insulation for thermal and electrical applications

Silicone Mica  
Laminate  
HP5

### GENERAL DESCRIPTION

Silicone Mica HP5 is a rigid insulation laminate primarily used for thermo-mechanical and electro-mechanical applications. It has high mechanical strength, excellent heat resistance and stability, and it is non-flammable.

### FEATURES & BENEFITS

- High mechanical strength
- Excellent thermal resistance and stability up to 800 °C
- Low thermal conductivity
- Non-flammable
- Very high resistance to pressure and impact
- Non-toxic
- Impervious to most chemicals

### APPLICATIONS

- Excellent high-temp replacement material for asbestos
- High voltage devices where high dielectric strength and resistance to electric arc and erosion are needed
- Gas pipe connector gaskets for high pressure lines, to prevent gas leaks even under fire conditions
- Applications requiring abrasion-resistant insulation for a dust-free environment, with extremely low permeability to water and oil
- High temperature insulation for food processing
- Induction and arc furnaces as thermal and electrical insulation



### GENERAL INFORMATION

Material	Muscovite Mica paper bonded with synthetic silicone resin
Colour	Light silver / grey
Specification	IEC 60893

TECHNICAL DATA		UNITS	VALUE
Adhesive Bonding Material Content		%	6
Density		g/cm <sup>3</sup>	2.1
Ratio of Layer Split		%	3
Flexural Strength		kgf/cm <sup>2</sup>	1500
Dielectric Strength		kV/mm	20
Specific Volume Resistance		Ω.m	1.1 x 10 <sup>14</sup>
Dielectric Loss on Heating		%	2.0
Heat Resistance	Continuous Maximum	°C	550 800
Chemical Resistance			Excellent
Machinability			Excellent

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### DIMENSIONS

Sheet	Length x Width	mm	1000 x 1200
	Thickness	mm	0.2 to 50.0
Rod	Length	mm	up to 1000
	Diameter	mm	44.0
Tube	Length	mm	up to 1000
	Outer Diameter	mm	15.5 to 39.0
	Inner Diameter	mm	10.5 to 33.0
Washer	Thickness	mm	5.0 to 10.0
	Outer Diameter	mm	40.0 to 60.0
	Inner Diameter	mm	19.0 to 33.0

### SIZING & AVAILABILITY

The above table shows the most commonly requested products in this range. Should you require something outside of these parameters, please contact your local sales representative or our customer service team.

### TOLERANCES (mm)

Nominal Thickness	0.20	0.30	0.40	0.50	0.60	0.80	1.00	> 1.00
Test Variance	±0.04	±0.04	±0.04	±0.05	±0.05	±0.06	±0.07	-
Maximum Variance	±0.05	±0.05	±0.06	±0.07	±0.07	±0.08	±0.10	±10%

### MACHINING & FABRICATION

Insulect's manufacturing capabilities form a key part of the trusted service we offer our customers. Our two modern, well equipped facilities – in Brisbane and Melbourne – work with a wide range of electrical, thermal and mechanical materials – including plastics, composites and cellulose-based products.

We offer short run, specialty or volume based machining and fabrication for almost any application and can produce cut-to-order sheets or finished components. Coupled with our highly-trained and experienced team, we are able to deliver on the most complex of customer requirements.