



# TECHNICAL DATA SHEET (TDS)

## RIGID SILICONE MICA SHEET – PHLOGOPITE TYPE

### PRODUCT IDENTIFICATION

- **Product Name:** Rigid Silicone Mica Sheet – Phlogopite Type
- **Material Type:** Rigid silicone-bonded phlogopite mica
- **Details:**
  - **Company:** MISCO Australia
  - **Address:** 89-91 Licola Crescent, Dandenong South, VIC 3175
  - **Telephone Number:** 03 9706 5185
  - **Email:** info@misco.net.au
  - **Website:** [www.misco.net.au](http://www.misco.net.au)
- **TDS Number:** MISCO – TDS - 0016
- **TDS Date:** 01/12/2024
- TDS Version: 1

### PRODUCT DESCRIPTION

Rigid Silicone Mica Sheet – Phlogopite Type is a high-temperature electrical and thermal insulation composite manufactured from phlogopite mica paper bonded with heat-resistant silicone resin under controlled pressure and temperature.

The material combines the natural heat stability of phlogopite mica with the adhesion strength and environmental resistance of silicone, producing a dense, rigid, non-porous sheet that maintains excellent dielectric and mechanical performance under extreme conditions.

Withstanding continuous service temperatures up to 1000 °C and short-term exposure to 1200 °C, this sheet remains dimensionally stable, non-flammable, and resistant to thermal shock, humidity, and most chemicals. It provides superior arc, tracking, and flame resistance, making it ideally suited to switchgear, furnace, transformer, and motor insulation systems where reliability and endurance are essential.

The phlogopite-based grade is preferred for thermal containment and mechanical toughness in demanding industrial environments, particularly where prolonged high-temperature exposure and structural integrity are critical.

### NEMA GRADE

Not directly classified under NEMA LI-1; corresponds functionally to “Mica Type M” insulating materials (IEC 60371-3-3 Type V-3 – Phlogopite Silicone Bonded Sheet).

### CLASS

Class H (180 °C) – High-Temperature Electrical Insulation

(Material withstands up to 1000 °C structurally; silicone binder defines electrical class.)

### MILITARY SPECIFICATIONS AND TYPE

Rigid Silicone Mica Sheet – Phlogopite Type meets the performance requirements of defence-grade electrical and thermal insulation materials used in high-reliability assemblies. It is suitable for use in environments demanding high temperature endurance, arc resistance, mechanical integrity, and long-term electrical stability under shock, vibration, and moisture exposure.

Specification	Designation / Type	Description
<b>MIL-I-24768/19</b>	Type GPG-SC (Functional Equivalent)	Covers silicone resin-bonded glass-mica composites for electrical insulation in elevated-temperature environments. The Phlogopite Silicone Mica Sheet aligns with this grade in dielectric strength, arc resistance, and heat endurance.
<b>MIL-I-23269</b>	<i>Mica Electrical Insulating Materials</i>	Establishes general performance and testing standards for mica-based insulation products used in military electrical and thermal systems.

## KEY PROPERTIES

- **High Thermal Endurance:** Continuous service temperature up to 1000 °C, short-term exposure to 1200 °C without loss of structural integrity.
- **Excellent Dielectric Strength:** Maintains 15–20 kV/mm even at elevated temperatures and humidity levels.
- **Superior Arc and Tracking Resistance:** Non-carbonising surface resists electrical discharge and flashover.
- **Dimensional Stability:** Minimal thermal expansion and negligible shrinkage under load.
- **Mechanical Strength:** High compressive and flexural strength for use as rigid structural insulation in demanding assemblies.
- **Non-Flammable and Halogen-Free:** UL 94 V-0 rated (binder dependent); does not emit toxic gases when exposed to flame.
- **Moisture and Chemical Resistance:** Stable in humid, oily, or corrosive environments; unaffected by most acids, solvents, and lubricants.
- **Low Outgassing:** Clean performance under heat; suitable for sealed or high-vacuum systems.
- **Excellent Machinability:** Can be CNC-milled, punched, drilled, or water - jet cut with smooth edges and tight tolerances.
- **Long-Term Electrical Stability:** Maintains insulation properties over extended service life under cyclic heat and voltage stress.
- **Environmentally Safe:** Asbestos-free, RoHS / REACH compliant, recyclable, and non-hazardous to handle.

## APPLICATIONS

- **Switchboards and Electrical Assemblies** – Phase barriers, busbar supports, terminal boards, and arc chutes requiring high dielectric and heat resistance.
- **Transformers and Motors** – End plates, coil supports, spacers, and insulation panels exposed to high voltage and temperature.
- **Industrial Heating Equipment** – Structural insulation in band heaters, cartridge heaters, ovens, and furnace walls.

- **Power Generation and Distribution** – Arc and heat shields in generator housings, substations, and turbine control systems.
- **Rail and Transportation** – Thermal and electrical isolation components for traction, rolling stock, and auxiliary power systems.
- **Defence and Aerospace** – Thermal barriers, enclosure liners, and electrical insulation panels in mission-critical or high-vibration environments.
- **Renewable Energy Systems** – Insulation boards and supports in inverter cabinets, wind turbine controllers, and solar isolation units.
- **Machinery and Industrial Plant** – Precision-machined insulation plates, jigs, and mounting panels exposed to vibration and heat.
- **Electric Furnaces and Foundries** – Furnace linings, separators, and heat containment panels requiring mechanical rigidity and thermal shock resistance.
- **Electrical Heating and Thermal Control Devices** – Base plates and insulation layers in irons, toasters, and industrial heaters.

## INDUSTRIES SERVED

- **Switchboard Builders** – For insulating barriers, busbar supports, and arc-resistant panels in low and high-voltage assemblies.
- **Transformer and Motor Manufacturers** – Used in coil supports, terminal boards, and thermal insulation components where electrical and heat endurance are critical.
- **Electric Furnace Manufacturers and Repairers** – Applied as rigid thermal barriers, furnace wall insulation, and heating element supports withstanding extreme temperatures.
- **Power Generation and Distribution** – High-temperature insulation panels and arc shields for substations, generators, and turbine control systems.
- **Rail and Transport** – Thermal and electrical isolation components in traction, rolling stock, and auxiliary power modules.
- **Aerospace and Defence** – Structural and electrical insulation materials for high-reliability, high-temperature applications where flame resistance and dimensional stability are essential.

- **Renewable Energy** – Used in inverter enclosures, wind turbine control systems, and solar isolation panels requiring heat and dielectric endurance.
- **Industrial Machinery and Plant** – Machined insulation parts, spacers, and panels for equipment exposed to heat, vibration, and electrical load.
- **Automotive and Electrical Equipment** – High-temperature insulators in ignition systems, resistors, and electrical assemblies.
- **Oil, Gas, and Mining** – Thermal and electrical insulation panels in control systems, switchgear, and heavy-duty power infrastructure.

## SPECIFICATIONS

Property	Details
<b>Product Form</b>	Sheets, rods, and machined components
<b>Material Type</b>	Rigid Silicone-Bonded Phlogopite Mica Sheet
<b>Standard Colour</b>	Golden Brown / Amber
<b>Sheet Sizes</b>	1000 × 1200 mm and 1000 × 2400 mm (standard) — custom sizes available on request
<b>Thickness Range</b>	0.3 mm to 100 mm (other thicknesses available on request)
<b>Manufactured To</b>	IEC 60371-3-3 Type V-3 (Phlogopite Mica Paper Bonded with Silicone Resin) MIL-I-24768/19 (Type GPG-SC – Functional Equivalent)
<b>NEMA Grade</b>	Type M (Mica Product – Reference Classification)
<b>Thermal Class</b>	Class H (180 °C) – Binder-limited; structural stability up to 1000 °C
<b>Flame Rating</b>	UL 94 V-0 (Self-Extinguishing; binder dependent)
<b>Compliance</b>	RoHS 3 and REACH Compliant / Halogen-Free / Asbestos-Free / Environmentally Safe – Non-Toxic
<b>Surface Finish</b>	Smooth satin finish; non-porous and suitable for precision machining

## TOLERANCES ON SHEET THICKNESS

Nominal Thickness (mm)	Thickness Tolerance ( $\pm$ mm)
0.30 – 0.80 mm	$\pm$ 0.05 mm
1.0 – 2.0 mm	$\pm$ 0.10 mm
2.5 – 4.0 mm	$\pm$ 0.15 mm
5.0 – 8.0 mm	$\pm$ 0.20 mm
10 – 15 mm	$\pm$ 0.25 mm
16 – 25 mm	$\pm$ 0.30 mm
26 – 40 mm	$\pm$ 0.40 mm
41 – 60 mm	$\pm$ 0.50 mm
> 60 mm	$\pm$ 0.75 mm (subject to review based on sheet construction)

## NOTES

- Tolerances may vary slightly depending on press cycle, binder content, and sheet construction.
- Custom thicknesses or tighter tolerances may be available on request depending on sheet size and production method.
- For CNC-machined parts, final dimensional tolerances are typically governed by machining capability rather than sheet tolerance.
- Flatness and parallelism are checked during quality control and can be tailored for precision applications.

## MECHANICAL PROPERTIES

Property	Test Method	Typical Value
<b>Density</b>	ISO 1183	2.3 – 2.6 g/cm <sup>3</sup>
<b>Flexural Strength</b>	IEC 60371-2	150 – 200 MPa
<b>Flexural Modulus</b>	IEC 60371-2	12 – 18 GPa
<b>Compressive Strength</b>	IEC 60371-2	220 – 300 MPa
<b>Tensile Strength</b>	IEC 60371-2	100 – 150 MPa
<b>Shear Strength</b>	ASTM D732	70 – 90 MPa
<b>Impact Resistance (Izod)</b>	ASTM D256	5 – 8 kJ/m <sup>2</sup>
<b>Rockwell Hardness</b>	ASTM D785	95 HRM (M Scale)
<b>Modulus of Elasticity (E)</b>	Calculated	12 – 18 GPa
<b>Poisson's Ratio</b>	Typical for mica composites	0.20 – 0.25
<b>Coefficient of Thermal Expansion (CTE)</b>	ASTM D696	$8 \times 10^{-6}$ /K
<b>Thermal Shock Resistance</b>	–	Excellent
<b>Creep Resistance</b>	IEC 60481	High
<b>Dimensional Stability Under Heat</b>	–	Excellent
<b>Moisture Absorption (24 h)</b>	ASTM D570	≤ 0.3 %
<b>Specific Stiffness</b>	–	High
<b>Edge Integrity After Machining</b>	–	Excellent
<b>Vibration Resistance</b>	–	Excellent

- Maintains structural integrity at extreme temperatures due to the phlogopite matrix.
- Silicone binder remains stable up to ~250–300 °C; above this the mica structure carries the load.
- Superior rigidity compared with flexible mica or organic resin laminates.
- Outstanding resistance to cracking, splitting, and chipping when properly machined.
- Ideal for load-bearing insulation components, spacers, supports, and heat shields.

## ELECTRICAL PROPERTIES

Property	Test Method	Typical Value
<b>Dielectric Strength (Perpendicular)</b>	IEC 60243	15 – 20 kV/mm
<b>Dielectric Strength (Parallel)</b>	IEC 60243	20 – 25 kV/mm
<b>Dielectric Constant (50 Hz)</b>	IEC 60250	6.5 – 7.5
<b>Dielectric Constant (1 MHz)</b>	IEC 60250	6.5 – 7.0
<b>Dissipation Factor (tan δ, 50 Hz)</b>	IEC 60250	≤ 0.005
<b>Dissipation Factor (1 MHz)</b>	IEC 60250	≤ 0.015
<b>Volume Resistivity</b>	IEC 60093	10 <sup>13</sup> – 10 <sup>15</sup> Ω·cm
<b>Surface Resistivity</b>	IEC 60093	10 <sup>12</sup> – 10 <sup>14</sup> Ω
<b>Insulation Resistance (90 °C)</b>	IEC 60167	Very High
<b>Insulation Resistance (After Humidity Soak)</b>	IEC 60167	High
<b>Breakdown Voltage – Short-Time Test</b>	IEC 60243	> 35 kV
<b>Tracking Resistance (CTI)</b>	IEC 60112	> 600
<b>Arc Resistance</b>	ASTM D495	Excellent
<b>Corona Resistance</b>	IEC 60243	High
<b>Electric Strength After Heat Ageing</b>	IEC 60243	Excellent
<b>Electric Strength After Moisture Conditioning</b>	IEC 60243	Excellent
<b>Leakage Current (High Voltage Test)</b>	IEC 60243	Very Low
<b>Electrical Stability at Elevated Temperature</b>	–	Excellent
<b>Flashover Resistance</b>	IEC 60587	High
<b>Dielectric Loss Index</b>	IEC 60250	Very Low
<b>High-Frequency Stability</b>	–	Excellent
<b>Partial Discharge Endurance</b>	IEC 60270	High

## THERMAL PROPERTIES

Property	Test Method	Typical Value
<b>Continuous Operating Temperature</b>	–	Up to <b>1000 °C</b>
<b>Short-Term Peak Temperature</b>	–	Up to <b>1200 °C</b>
<b>Thermal Class (Electrical)</b>	IEC 60085 / UL 1446	<b>Class H (180 °C)</b>
<b>Thermal Conductivity</b>	ASTM E1461	0.30 – 0.35 W/m·K
<b>Coefficient of Thermal Expansion (CTE)</b>	ASTM D696	$8 \times 10^{-6}$ /K
<b>Specific Heat Capacity</b>	ASTM E1269	~ 0.80 kJ/kg·K
<b>Thermal Diffusivity</b>	ASTM E1461	0.70 – 0.90 mm <sup>2</sup> /s
<b>Thermal Shock Resistance</b>	–	Excellent
<b>Heat Ageing Stability</b>	IEC 60216	Excellent
<b>Flammability Rating</b>	UL 94	V-0 (binder dependent)
<b>Smoke Emission</b>	–	Extremely Low
<b>Glow Wire Resistance</b>	IEC 60695-2-11	High
<b>Ignition Temperature</b>	–	Non-Combustible
<b>Binder Thermal Degradation Onset</b>	–	~250–300 °C
<b>Structural Integrity at Temperature</b>	–	Maintained up to 1000 °C
<b>Thermal Insulation Efficiency</b>	–	High
<b>Heat Transfer Stability</b>	–	Excellent
<b>Performance Under Thermal Cycling</b>	–	Excellent
<b>Outgassing at Elevated Temperature</b>	–	Very Low

## CHEMICAL RESISTANCE

Chemical / Exposure	Resistance Level	Notes
Water / Humidity	Excellent	Non-hygroscopic; negligible moisture absorption.
Mineral Oils	Excellent	Stable in transformer oils, lubricants, hydraulic oils.
Synthetic Oils	Excellent	Suitable for high-performance industrial fluids.
Greases	Excellent	No swelling or softening.
Acids (Dilute)	Excellent	Resistant to most dilute inorganic acids.
Acids (Strong)	Good	Limited attack depending on concentration and exposure time.
Alkalis (Dilute)	Good	Minor surface effect at extended exposure.
Alkalis (Strong)	Fair	Not recommended for prolonged contact.
Solvents (Alcohols)	Excellent	No degradation.
Solvents (Ketones)	Very Good	Maintains structural and electrical integrity.
Solvents (Esters / Ethers)	Good	Generally stable.
Petroleum Products	Excellent	Resistant to fuels, diesel, kerosene.
Refrigerants	Excellent	Stable in contact with common HVAC refrigerants.
Salt Spray / Marine Environment	Excellent	High corrosion and moisture resistance.
Oxidation Resistance	Excellent	Suitable for elevated-temperature oxidative environments.
UV Exposure	Good	Minor surface change over long-term outdoor use.
Fire / Flame Exposure	Excellent	Non-combustible; minimal smoke generation.
Combustion By-Products	Excellent	Does not produce corrosive halogens.

## PROCESSING AND MACHINING CONSIDERATIONS

- General Machinability:**  
 Suitable for CNC milling, drilling, routing, punching, sawing, and water-jet cutting. Material maintains clean edge finish with minimal chipping.
- Tooling Requirements:**  
 Use **carbide or diamond-tipped tools** for optimum tool life and surface finish. Maintain sharp tooling to avoid edge breakout.

- **Cutting Speeds & Feeds:**  
Medium to high spindle speeds with light to moderate feed rates provide the best results. Avoid excessive heat buildup.
- **Drilling:**  
Use carbide drill bits with gradual feed pressure. Backing support recommended to prevent exit-side flaking.
- **Sawing:**  
Tungsten carbide circular saw blades or diamond-coated blades provide smooth, accurate cuts. Use dust extraction where possible.
- **Routing & Profiling:**  
CNC routers achieve precise dimensional accuracy. Climb-cutting with carbide end mills reduces surface tear.
- **Water-Jet Cutting:**  
Highly suitable for intricate profiles and tight tolerances. Prevents heat-affected zones; recommended for thick sections.
- **Grinding & Finishing:**  
Fine-grit abrasive wheels may be used for surface finishing. Avoid aggressive grinding which may cause localised overheating.
- **Threading & Tapping:**  
Internal threads can be machined; use carbide taps and apply slow, controlled feed to prevent delamination.
- **Fastening & Assembly:**  
Compatible with mechanical fastening, adhesives, and high-temperature silicone or epoxy bonding systems.
- **Thermal Exposure During Machining:**  
Avoid exposing the sheet to temperatures above 250–300 °C during machining, as silicone binder softening may affect precision.
- **Dimensional Stability:**  
Machined components remain stable under load. Allow material to acclimatise to workshop temperature before precision machining.
- **Handling Precautions:**  
Although tough, avoid dropping or striking edges of thin gauges. Store flat to maintain sheet integrity.
- **Dust Control:**  
Machining produces fine mineral particulates; use dust extraction, PPE, and proper shop ventilation.

## **SHEET HANDLING BEFORE MACHINING**

- **Storage Orientation:**  
Store sheets flat and fully supported to prevent bowing or distortion, especially in thinner gauges.

- **Environmental Conditioning:**  
Allow sheets to acclimatise to workshop temperature (typically 12–24 hours) before machining to ensure dimensional stability.
- **Humidity Control:**  
Although moisture absorption is low, store in a dry, controlled environment to maintain electrical and mechanical integrity.
- **Protection from Contamination:**  
Keep sheets covered to prevent contamination from oils, dust, or metal particles that may affect machining or bonding.
- **Edge Protection:**  
Avoid dropping sheets or striking corners. Edges can chip if subjected to impact, particularly in thin sections.
- **Handling Method:**  
Lift larger sheets with two people or appropriate lifting equipment to prevent flexing or cracking.
- **Inspection Prior to Machining:**  
Confirm sheet thickness, flatness, and surface condition before processing.  
Reject sheets with visible cracks, delamination, or surface contamination.
- **Marking Preparation:**  
Use non-metallic, non-penetrating markers (pencil or removable ink).  
Avoid deep scribing or scoring that may initiate fractures during machining.
- **Clamping & Fixturing Consideration:**  
Ensure sheets are kept flat during loading and fixturing to avoid stress-induced warping during machining.
- **Binder Sensitivity:**  
Avoid exposing sheets to temperatures above 250–300 °C before machining, as the silicone binder may soften.

## ENVIRONMENTAL COMPLIANCE

Requirement / Standard	Status
<b>RoHS 3 (2015/863/EU)</b>	Compliant – contains no restricted substances above allowable limits
<b>REACH (EC 1907/2006)</b>	Compliant – no SVHCs (Substances of Very High Concern) present above reporting thresholds
<b>Halogen-Free</b>	Yes – meets IEC 61249-2-21 criteria
<b>Asbestos-Free</b>	Yes – no asbestos fibres used in any stage of manufacture
<b>PFAS-Free</b>	Yes – no per- and polyfluoroalkyl substances used
<b>VOC Emissions</b>	Very Low – silicone binder emits negligible volatile compounds
<b>Heavy Metals</b>	Free from lead, mercury, cadmium, hexavalent chromium

<b>Ozone-Depleting Substances</b>	None present; compliant with Montreal Protocol
<b>Combustion Toxicity</b>	Very Low – non-halogenated; does not release corrosive fumes
<b>Lifecycle &amp; Recycling</b>	Inert, non-toxic, and stable; can be mechanically recycled or disposed as non-hazardous industrial waste
<b>Operational Safety</b>	Safe for human handling; no fibre shedding or respiratory irritants under normal use

## SUSTAINABILITY AND ENVIRONMENTAL IMPACT

- Material Sustainability:**  
 Manufactured from naturally occurring phlogopite mica and non-toxic silicone binder systems. Both materials are stable, inert, and pose no risk of environmental contamination during use.
- Resource Efficiency:**  
 Production processes utilise controlled heat-press cycles that minimise waste. Off-cuts and machining remnants can be collected for mechanical recycling or disposed of safely as non-hazardous industrial waste.
- Long Service Life:**  
 Exceptional thermal and electrical stability extends operational lifespan, reducing the need for frequent replacement and lowering the total environmental footprint of electrical and thermal systems.
- End-of-Life Profile:**  
 Contains no halogens, asbestos, or toxic additives. Material remains chemically inert and can be disposed of as standard non-hazardous waste in accordance with local regulations.
- Emissions & Air Quality:**  
 Generates negligible VOCs and no harmful off-gassing under normal operating temperatures. When exposed to flame, combustion by-products are low-toxicity and non-corrosive.
- Environmental Protection Compliance:**  
 Fully compliant with modern environmental directives including RoHS 3, REACH, and requirements for halogen-free and asbestos-free materials used in electrical and high-temperature applications.
- Operational Safety & Handling:**  
 Does not shed respirable fibres, does not produce hazardous dust under normal use, and does not introduce microplastics or degradable contaminants into the environment.
- Sustainable Application Benefit:**  
 High durability and thermal resilience support the development of more efficient, longer-lasting electrical systems in power generation, renewable energy, defence, and industrial infrastructure.

## **SAFETY INFORMATION**

### **General Safety**

- The material is non-toxic, non-corrosive, non-flammable, and classified as non-hazardous under global chemical regulations.
- Not classified as a dangerous substance or mixture under GHS, WorkSafe Australia, REACH, or OSHA criteria.

### **Handling Precautions**

- Normal handling requires no special measures.
- Use gloves when handling large sheets to prevent cuts from sharp machined edges.
- Support sheets with two people or mechanical lifting aids to prevent accidental dropping or flex stress.

### **Machining Safety**

- Cutting, drilling, routing, or sanding may generate fine mineral dust.
- Use local exhaust ventilation, dust extraction, and appropriate respiratory protection (P2 or N95 rated masks).
- Safety glasses or face shields are recommended to prevent irritation from airborne particles.
- Ensure work areas are well-ventilated and regularly cleaned with industrial vacuums (avoid compressed-air blowing).

### **Dust Characteristics**

- Dust is inert and non-toxic, but may cause temporary irritation of eyes, skin, or respiratory tract.
- Avoid prolonged exposure to airborne dust.
- Do not allow dust to accumulate on electrical equipment.

### **Thermal Safety**

- Material can operate at extreme temperatures but will retain heat after exposure.
- Use heat-resistant gloves when handling parts that have been in service.
- Avoid rapid quenching of hot parts to prevent thermal shock.

### **Skin and Eye Contact**

- Direct skin contact is safe; no chemical burns or reactions occur.
- Dust may cause mild mechanical irritation.

- In case of contact with eyes, rinse with clean water for several minutes.
- Wash skin with soap and water if irritation occurs.

### **Inhalation and Ingestion**

- Inhalation of machining dust should be avoided. Move to fresh air if discomfort occurs.
- Ingestion is unlikely and poses minimal risk. Seek medical advice if symptoms develop.

### **Fire and Combustion**

- Classified as non-combustible.
- Decomposition products at extreme temperatures are low-toxicity and non-corrosive.
- Suitable for use in fire-critical applications such as switchboards, furnaces, and heating elements.

### **Chemical Safety**

- Stable and inert when exposed to oils, greases, acids, solvents, and contaminants.
- No hazardous chemical reactions expected under normal use.
- Not reactive with common industrial cleaning agents.

### **Environmental and Disposal**

- Material is environmentally stable and does not break down into harmful substances.
- Dispose of off-cuts and waste as non-hazardous industrial waste.
- No special restrictions on transport, storage, or disposal.

### **Regulatory Compliance**

- Fully compliant with RoHS 3, REACH, Halogen-Free, Asbestos-Free, and PFAS-Free requirements.
- Not a controlled or restricted material under state or federal WHS regulations.
- SDS available on request for WHS documentation.

**Refer to Safety Data Sheet (SDS) for full details before handling.**

## WARRANTY

MISCO Australia warrants that Rigid Silicone Mica Sheet – Phlogopite Type is free from defects in material and workmanship at the time of supply. This warranty applies only to products that have been stored, handled, processed, and installed in accordance with MISCO Australia guidelines.

- **Warranty Period:**  
12 months from the date of invoice, unless otherwise agreed in writing.
- **Scope of Warranty:**  
Covers replacement of the product or refund of the purchase price, at MISCO Australia's discretion, where defects are confirmed to be due to manufacturing faults.
- **Exclusions:**  
This warranty does not cover damage or failure caused by:
  - Improper storage, handling, or machining
  - Misuse, abuse, or modification of the product.
  - Operation outside the recommended temperature, electrical, or mechanical limits
  - Incorrect installation or unsuitable application
  - Normal wear and tear
  - Use in a manner inconsistent with the Technical Data Sheet
  - Third-party damage or external environmental conditions beyond MISCO's control
- **Liability Limitation:**  
MISCO Australia's liability is strictly limited to the replacement value of the product supplied.  
MISCO Australia is not liable for consequential, indirect, or incidental losses, including but not limited to loss of production, downtime, or damage to associated equipment.
- **Customer Responsibility:**  
The customer must ensure that the product is fit for purpose in the intended application and verify suitability under actual service conditions.  
All testing, integration, and approval for end-use remain the responsibility of the purchaser or end-user.
- **Claims Procedure:**  
Any warranty claim must be submitted in writing with evidence of defect, batch number (if applicable), and proof of purchase. MISCO Australia may request return of the product for inspection.

## DISCLAIMER

The information provided in this data sheet is intended as a general guide for the use and handling of material. It is based on current knowledge, testing, and is believed to be accurate and reliable as of the date of publication. However, **MISCO Australia** makes no warranties, express or implied, regarding the material's performance, suitability, or fitness for any specific application.

Users are responsible for determining the material's suitability for their intended purpose, including conducting independent tests and evaluations as necessary. MISCO Australia does not accept any liability for any loss, damage, or injury resulting from the use of this information, the products described, or reliance on the provided recommendations.

Specifications are subject to change without notice as part of MISCO Australia's ongoing product improvement initiatives.

Always refer to the latest version of this data sheet before proceeding with critical applications.

All sales are subject to MISCO Australia's standard terms and conditions of sale.

Revision	Date Issued	Prepared / Reviewed By	Description of Change	Approved By
1.0	January 2025	MISCO Australia	Initial release of Data Sheet for Rigid Silicone Mica Sheet – Phlogopite Type	Director, MISCO Australia

Document Control:

- **Document Title:** Rigid Silicone Mica Sheet – Phlogopite Type
- **Document ID:** MISCO – TDS - 0016
- **Revision:** 1.0
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**End of Technical Data Sheet.**