

NATURAL MICA

TECHNICAL DATA OF MICA

| Electrical properties | | MUSCOVITE |
|---|------------|---|
| Permittivity | ϵ | 6 - 8 |
| Loss tangent (tan δ) | 10^{-4} | At 10^6 Hz : 3 |
| Dielectric Strength (in air at 20 $^{\circ}$ C at 50 Hz) | kV/mm | at thickness : 1,0 mm : 60 - 70 0,1 mm : 200 - 210 |
| Breakdown Voltage | kV | 0,02 mm : 4,0 0,05 mm : 5,0 |
| Surface resistivity | Ohm | 10^{12} |
| Volume resistivity | Ohm . cm | At 20 $^{\circ}$ C : 3.10^{17} 100 $^{\circ}$ C : $1,3.10^{16}$ 700 $^{\circ}$ C : 1.10^9 |

| Thermal properties | | MUSCOVITE |
|---------------------------------|------------------------------|-------------------------------|
| Continuous operating Temp. | $^{\circ}$ C | 700 - 800 |
| Beginning to Calcine at | $^{\circ}$ C | 900 |
| Calcination-point | $^{\circ}$ C | 900 - 1000 |
| Melting Temperature | $^{\circ}$ C | 1200 - 1300 |
| Thermal conductivity | $\frac{W}{m \cdot k}$ | 0,25 - 0,75 |
| Coefficient of linear expansion | $\frac{10^{-7}}{^{\circ}$ C} | 83-98 (20 - 200 $^{\circ}$ C) |
| Specific heat | $\frac{1984}{g \cdot k}$ | 0,060 |

| Mechanical properties | | MUSCOVITE |
|---------------------------------------|-----------|-----------------------|
| Density | g/cm 3 | 2,6 - 3,2 |
| Degree of Hardness(acc. to Mohs) | N/mm 2 | 2,8 - 3,2 |
| Tensile Strength | N/mm 2 | 245 - 294 |
| Compression Strength | N/mm 2 | 174 |
| Shearing Strength (d= 50-500 μ) | N/mm 2 | 231 - 260 |
| Yield point (d = 250 μ) | N/mm 2 | 343 - 383 |
| Modulus of elasticity (d= 250 μ) | N/mm 2 | $157.10^3 - 206.10^3$ |