

Technical Data Sheet

Mica tapes

MICA MAT® 77866

- **Excellent Flexibility**
- **Excellent Electrical Properties**
- **Good Voltage Endurance Characteristics**
- **Fully Cured Binder for Sealed Coil Applications**

Description

MICA MAT® 77866 is a film faced, woven glass cloth reinforced, fully cured flexible resin bonded mica paper tape designed for use as ground insulation in AC motors & generators. It is 6 mils thick with 2 mil calcined mica paper for excellent long-term electrical properties. The excellent flexibility of the resin binder and the mechanical protection from the polyester film facing on both sides of the tape provides ease of winding and resistance to cracking from starting surges.

Application

MICA MAT® 77866 tapes and wrappers are suggested for use as turn and ground insulation on AC stator coils, as ground insulation on DC armature coils and for insulating high voltage flexible leads. This product is compatible with a wide range of dipping and impregnating varnishes (polyester and epoxy).

Processing

MICA MAT® 77866 tapes and wrappers may be applied by either hand or machine taping, with the glass reinforcement to the outside of the coil for maximum mechanical strength. The resin binder in this product is fully cured and requires no further baking and is compatible with a wide variety of treating varnishes. This tape is also suitable for use with FUSA-FLEX® sealing armor tapes.

Availability

MICA MAT® 77866 material is available as tape or wrapper in rolls from ½" to 38" in width in ¼" increments (13mm to 965 mm). Custom slit width roll, cut sheets, special core sizes and non-standard lengths may be available upon request. This material and other insulating materials are available from Von Roll or from your local authorized distributor. For the name of your distributor or for more information about these products contact Von Roll USA, 200 Von Roll Drive, Schenectady, NY. (518) 344-7100.

Physical Properties	Test norm	Unit	Value
Polyester Film Thickness		mils (mm)	0.25 (0.0063)
Mica Mat Thickness		mils (mm)	2.0 (0.050)
2 nd Polyester Film Thickness		mils (mm)	0.25 (0.0063)
Non-woven Glass Thickness		mils (mm)	2.0 (0.050)
Total Thickness	ASTM D374C	mils (mm)	5.8 (0.147)
Mica Mat weight		lb/yd ² (g/m ²)	0.133 (72)
Total Weight		lb/yd ² (g/m ²)	0.331 (179)
Coverage		yd ² /lb (m ² /kg)	3.0 (5.5)
Mechanical Properties	Test norm	Unit	Value
Tensile Strength, avg.	ASTMD828	lb/in (N/cm)	80 (140)
Stiffness	Gurley	mg	500
Elongation		%	< 2
Electrical Properties	Test norm	Unit	Value
Dielectric Strength, short time, ¼"	ASTM D149	volts/mil (kV/mm)	1050 (41)

Shelf life and Storage

MICA MAT® 77866 tape should exhibit no shelf life limitations when stored for 12 months or longer under normal storage conditions of 77°F (25°C) and 50% humidity. It is recommended to store material in clean and dry conditions in the original packaging.

Health and safety

Safety Data Sheets defining the known hazards and describing safety precautions appropriate for this product are available upon request from Von Roll USA, Inc., Schenectady, NY, (518) 344-7100 and/or www.vonroll.com. Similar information for solvents and other chemicals to be used with this product may be obtained from the appropriate supplier and used accordingly. We recommend following all hygiene and safety standards while processing material.

Liability

The information on this data sheet and the chart above is to be understood as a guideline and has general information. It is not binding for VR and it justifies in no case any liability. VR reserves the right to change the information at any time. The product properties set forth in this data sheet are based on the results of testing of typical material produced by the affiliated companies of Von Roll Holding Ltd. (underneath referred as Von Roll). Some variation in product properties is typical. Comments or suggestions relating to any subject other than product properties are offered only to call the end-user's or other person's attention to considerations which may be relevant in the independent determination of the use and/or manner of use of product. Von Roll does not claim or warrant that the use of its product will have the results described in this data sheet or that the information provided is complete, accurate or useful. The user should test the product to determine its properties and its suitability for the intended use. Von Roll expressly disclaims any liability for any damage, harm, injury, cost or expense to any person resulting directly or indirectly from that person's reliance on any information contained in this data sheet. Nothing contained in this data sheet constitutes representation or warranty as to any matter whatsoever. Von Roll makes no warranties whatsoever in this data sheet, expressed or implied, including any implied warranty or fitness for a particular use or purpose. Von Roll shall in no event be liable for incidental, exemplary, punitive, or consequential damages.