MICA MAT® 77955/77956/77959
NON-WOVEN TAPES AND WRAPPERS

Product Description
MICA MAT 77955, 77956 and 77959 tapes and wrappers are polyester resin bonded, non-woven glass reinforced, mica paper insulating materials. This construction permits increased mica content per unit thickness over conventionally reinforced, woven glass products, which results in greater voltage endurance protection. The non-woven glass backing also allows the tape version of these products to pull down flat and tight, even around irregular surfaces such as the "nose" of a coil.

Application
MICA MAT 77955, 77956 and 77959 tapes and wrappers are suggested for use as turn and ground insulation on AC stator coils, and as insulation for high voltage flexible leads. These products are compatible with a wide range of dipping and impregnating varnishes (polyester and epoxy). In hermetic motor applications, it is suggested that these tapes be used in conjunction with a sealing armor tape as a protective barrier.

Construction - Typical

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<td>77955</td>
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<td>77959</td>
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<tr>
<td>Polyester Film; inches (mm)</td>
<td>.00025 (.0063)</td>
<td>.00025 (.0063)</td>
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<tr>
<td>Non-woven Glass; inches (mm)</td>
<td>.0013 (.033)</td>
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<tr>
<td>Mica Paper; inches (mm)</td>
<td>.0018 (.046)</td>
<td>.0026 (.066)</td>
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Binder Type | Polyester | Polyester | Polyester |

Thickness, ASTM D-374C; Master Roll Average mils, (mm) 4.6 (.117) 5.8 (.147) 8.5 (.22)
Tolerance +/- mils, mm 0.7 (.018) 0.8 (.020) 1.0 (.025)
Mica Paper Weight: g/m² 72 109 196
Yield, Approx., lb/yd²: (g/m²) 29 (155) 38 (206) .58 (315)
Coverage, Approx. yd²/lb (m²/kg) 3.45 (6.45) 2.63 (4.85) 1.72 (3.17)

Typical Properties

Tensile Strength; ASTM D-828; lb/in (n/cm), avg. 80 (140) 80 (140) 80 (140)
Stiffness, Gurley; mg, nominal 400 600 1600
Elongation; %, avg. <2 <2 <2

Temperature Class, IEEE Std #1; °C 155 155 155
Short Time Dielectric Strength, ASTM D-149; avg. vpm (kv/mm) 1300 (51) 1200 (47) 1000 (39.4)

Shelf Life
MICA MAT 77955, 77956 and 77959 tapes have exhibited no shelf life limitations for a period of one year when stored under normal room conditions; 77°F (25°C) and 50% relative humidity.
Application Methods
MICA MAT 77955, 77956 and 77959 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.

Recommended Cure Cycle
The resin binder in these products is fully cured. The selection of a cure cycle is governed by varnish used in processing.

Available Forms
MICA MAT 77955, 77956 and 77959 tapes and wrappers are available as slit tape or wrapper, ½ inch to 38 inch in width (12.7 mm to 96.5 mm). Standard width tolerance on slit tape is ± 0.032 inch.

Specifications
The properties shown above are typical values only, and should not be used as a basis for preparing specifications. Contact our Customer Service department, (518) 344-7100 for assistance in preparation of specifications for your specific system application.

Safety Precautions
Material Safety Data Sheets defining the known hazards and describing safety precautions appropriate for this product are available upon request from Von Roll Isola USA, Inc., One West Campbell Road, Schenectady, New York 12306 (518) 344-7100. Similar information sheets for solvents and other chemicals used with this product may be obtained from the appropriate supplier and used accordingly.

Availability
This product is available from Von Roll Isola USA, Inc. or from authorized VRI distributors. For the name of your distributor or for more information on this product, contact our Customer Service department, (518) 344-7100.

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