

# laminates

Acuflex®

## Acuflex® RM, RMR

- Tough, affordable laminates for wide variety of applications
- Excellent resistance to cut through and edge tear
- Many UL systems including Acuflex® laminates are available for class B (130°C)
- Wide range of constructions to optimize mechanical and electrical designs
- RM duplex is popular for many power tool and other small motor applications

### General description

Acuflex® rag paper/polyester film laminates are constructed from 100% pure cotton rag paper and electrical grade polyester film bonded with Von Roll Isola's Thermal Bond adhesive system. These laminates are available in duplex and triplex constructions. The polyester film contributes high dielectric strength and good heat stability and mechanical strength to the laminate. The rag paper protects the polyester film from mechanical damage and provides formability and a good surface for the adhesion of varnish.

### Application

Acuflex® rag paper/polyester film laminates meet the requirements of MIL-I-19632. They are suitable for use in sub-fractional to the largest rotating electrical equipment as slot, phase and end turn insulation. Other uses include ground and wrapper insulation in dry type transformers and in formed and fabricated parts.

### Features

### Benefits

<ul style="list-style-type: none"><li>• Tough, strong laminates</li><li>• Easily cuffed, punched or formed</li><li>• Smooth, slick surface finish</li><li>• Available in wide range of thicknesses and constructions from 0.007" through 0.032"</li><li>• Von Roll Isola Thermal Bond adhesive and topcoat system</li><li>• Excellent performance through temperature class B (130°C) designs</li></ul>	<ul style="list-style-type: none"><li>• Useful in many mechanically strenuous electrical applications</li><li>• Excellent edge tear resistance for slot liners and terminal pads</li><li>• Suitable for a wide variety of applications</li><li>• Excellent insertion properties hand or automated manufacturing equipment</li><li>• Allows engineers to optimize equipment design for function and material cost</li><li>• Will not delaminate or blister and high temperature</li><li>• Many UL recognized systems available</li></ul>
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### Technical Information: Typical Values

Thickness	Product Yield		Dielectric Strength	Volume Resistivity	Surface Resistivity	Tensile Strength		Tear Strength		
	ASTM D374		ASTM D149	ASTM D257	ASTM D257	ASTM D882		ASTM D1004		
			2" dia. electrode					Graves		
Mils	Syd/lb	Lb/syd	Volts	Ohms/cm	Ohms	Lb /in width		(Lb.)		
						MD	CD	MD	CD	
RM 5-2	0.007	2.22	0.45	8,000	10 <sup>14</sup>	10 <sup>12</sup>	115	83	8	7
RM 5-3	0.008	1.96	0.51	11,000	10 <sup>14</sup>	10 <sup>12</sup>	140	109	14	9
RM 7-2	0.009	1.74	0.59	9,000	10 <sup>14</sup>	10 <sup>12</sup>	150	102	12	9
RM 7-3	0.010	1.51	0.66	10,000	10 <sup>14</sup>	10 <sup>12</sup>	160	108	13	10
RM 10-1	0.011	1.41	0.71	6,000	10 <sup>14</sup>	10 <sup>12</sup>	140	100	10	6
RM 10-2	0.012	1.30	0.77	10,000	10 <sup>14</sup>	10 <sup>12</sup>	180	120	16	12
RM 10-3	0.013	1.20	0.84	12,500	10 <sup>14</sup>	10 <sup>12</sup>	220	100	18	10
RM 12-3	0.015	1.02	0.98	12,000	10 <sup>14</sup>	10 <sup>12</sup>	250	160	22	16
RM 15-2	0.017	0.92	1.09	9,500	10 <sup>14</sup>	10 <sup>12</sup>	280	140	23	18
RMR 5-2-5	0.012	1.30	0.77	11,000	10 <sup>14</sup>	10 <sup>12</sup>	200	118	25	16
RMR 5-3-5	0.013	1.20	0.83	12,000	10 <sup>14</sup>	10 <sup>12</sup>	320	170	30	16
RMR 7-2-7	0.016	0.98	1.02	12,000	10 <sup>14</sup>	10 <sup>12</sup>	280	146	32	25
RMR 10-2-10	0.022	0.71	1.41	13,000	10 <sup>14</sup>	10 <sup>12</sup>	350	200	34	26
MRM 1-5-1	0.007	2.42	0.41	11,000	10 <sup>14</sup>	10 <sup>12</sup>	120	90	9	8
MRM 1-30-1	0.032	0.51	1.95	18,000	10 <sup>14</sup>	10 <sup>12</sup>	453	304	58	40

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### Shelf Life

Shelf life is in excess of one year when stored at room temperature.

### Availability

These products are available as master rolls and in standard trimmed rolls 36" wide. Custom slitting and other packaging options available upon request.

### Specifications

The properties shown in this data sheet 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.

### DISCLAIMERS

The product properties set forth in this data sheet are based on the results of testing typical material produced by Von Roll Isola USA, Inc. 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 consideration of the use and/or manner of use of the product.

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EIM – Electrical Insulation Materials

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