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## Cellulose Paper Composites

**Rag Paper** – Electrical grade rag papers are made from cotton fibers by a process expressly designed to produce a high density, uniform sheet. Because of their high density, these papers have excellent tear resistance and good electric strength. Electrical grade rag papers are available in gauges from .004” through .025”.

**Fish Paper**- Fish paper is made from high quality rag paper by a chemical process using zinc chloride. It has a harder surface and is stiffer than ordinary rag paper. Fish paper has excellent forming qualities and good electric strength. It is available in gauges from .004” to .030”.

**Kraft Paper** – Kraft is a low cost electrical paper made from wood pulp. It is used in applications where high mechanical strength is not required.

**Paper/Polyester Film** – These composites are available in both two ply and three ply combinations. For general purpose applications, the composites are bonded with adhesives which have good solvent resistance and heat stability. For hermetic motors, the constructions are bonded with adhesives formulated to resist the effects of refrigerants.

Two ply combinations are normally used in small units where the optimum in space savings is desired. Three ply combinations of the paper/film/paper type are used in larger units where mechanical protection of the film is important and space is not critical. Three ply constructions of the film/paper/film type are used in specialized applications where moisture resistance and surface resistivity is of prime importance.

Product	Com-posites thickness ASTM D374 (Inches)	Yield Sq. Yds./ Lb	Lbs./ Sq. Yd.	Dielectric Strength ASTM D149 (2 in. Dia. Elect- rodes) (Volts)	Vol. Resistivity <sup>1</sup> ASTM D257 (ohm/ cms)	Surface Resistivity <sup>1</sup> ASTM D257 (ohm/ cms)	Tensile Strength ASTM D828 (Lbs./In. of Width)		Tear Strength Graves (Lbs.)	
							MD	CMD	MD	CMD
<b>Rag/Polyester Film</b>										
RM-72	0.009	1.67	0.60	9,000	10 <sup>14</sup>	10 <sup>12</sup>	148	105	10	8
RM-101	0.011	1.38	0.72	6,500	10 <sup>14</sup>	10 <sup>12</sup>	170	90	12	10
RM-102	0.012	1.23	0.81	9,000	10 <sup>14</sup>	10 <sup>12</sup>	194	127	14	11
RM-152	0.017	0.91	1.10	12,000	10 <sup>14</sup>	10 <sup>12</sup>	291	147	22	18
<b>Rag/Polyester Film/Rag</b>										
RMR-424	0.011	1.40	0.71	9,900	10 <sup>14</sup>	10 <sup>12</sup>	155	85	12	10
RMR-525	0.013	1.32	0.76	12,740	10 <sup>14</sup>	10 <sup>12</sup>	180	110	21	16
RMR-535	0.014	1.22	0.82	10,000	10 <sup>14</sup>	10 <sup>12</sup>	220	130	28	14
RMR-555	0.016	1.08	0.93	16,340	10 <sup>14</sup>	10 <sup>12</sup>	250	165	21	18
RMR-727	0.017	0.99	1.01	12,000	10 <sup>14</sup>	10 <sup>12</sup>	240	130	30	23
RMR-737	0.018	1.09	0.92	12,000	10 <sup>14</sup>	10 <sup>12</sup>	260	135	23	18
RMR-10210	0.022	0.72	1.39	12,200	10 <sup>14</sup>	10 <sup>12</sup>	335	165	30	23
<b>Polyester Film/Rag/Polyester Film</b>										
MRM-171	0.010	1.58	0.63	9,500	10 <sup>14</sup>	10 <sup>12</sup>	156	75	25	61
MRM-1101	0.013	1.22	0.82	9,700	10 <sup>14</sup>	10 <sup>12</sup>	175	106	15	11
MRM-1151	0.018	0.91	1.10	12,500	10 <sup>14</sup>	10 <sup>12</sup>	302	145	---	---

1 – Values obtained were greater than values shown.

Bedford Materials has no control over the final applications of the product by others, therefore, the information contained herein is intended as a general guide to product use and should not be construed as a warranty.