



**America's Leading Manufacturer
of Electrical Insulation Tapes**



Mutual Industries Provides the Widest Variety of Electrical and Thermal Insulation Textile Tapes in the Industry

Since 1910, Mutual Industries, Inc. has been a pioneer and leader in developing and manufacturing a wide line of reinforcement, electrical and thermal insulation tapes.

Mutual's specialized bi-directional fabric tapes are woven from such exotic materials as fiberglass, carbon/graphite, Kevlar, space-age ceramics and composite blends. Designed to meet stringent industrial and governmental specifications, these tapes are often used in the most hostile environmental conditions, such as aerospace, marine, military, nuclear and computer technology.

Mutual's Electrical Insulation Tapes are Available in Over 35 Sizes and Widths and in Medium or Tight Weave

Columbia-brand fiberglass, non-adhesive electrical tapes from Mutual are available in a wide variety of widths, thicknesses and styles for practically every electrical insulation requirement. Sizes range from .003" to .025" in thickness, and from 1/4" to 6" in width. Medium weave tapes are made in thickness from .004" to .025". Tight weave tapes are furnished in thicknesses from .003" to .010". The high strength and unusual dimensional stability have resulted in the extensive use of Mutual's electrical tapes throughout the world. They are manufactured to conform to General Electric, military specifications as well as custom requirements.

Untreated tapes are generally used by the electrical industry as coil wrappers, protective coverings, conductor insulation, mechanical reinforcements, etc. Whether applied in treated or untreated form, Mutual's fiberglass and dacron tapes are ultimately varnished. They very rarely go into actual electrical service in an uncoated form. These tapes are used in many kinds of electrical apparatus, from the smallest relay coils to huge turbogenerators.

Mutual manufactures polyester shrink tape. These woven selvedge polyester tapes are often used in V.P.I. systems since they are stronger and less expensive than cut-edge tapes.

Mutual Manufactures High Strength Kevlar Fabric Tapes

KEVLAR bi-directional fabric tapes by Mutual have the highest specific tensile strengths of any continuous fiber fabric commercially available. They are two and a half times as strong as "E"-glass, five times as strong as steel, and over ten times as strong as aluminum. Specific tensile modulus of KEVLAR 49 is three times that of "E"-glass and 75% of high strength graphite.

KEVLAR fabric tapes by Mutual display excellent stability over a wide range of temperatures for prolonged periods. The fabrics will not melt or support combustion but will start to carbonize at about 800 degrees F (427 degrees C). Even at temperatures as low as -320 degrees F (-196 degrees C), the Kevlar bi-directional fabric tapes show essentially no embrittlement or strength loss. They also have excellent dimensional stability.



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Average Thickness	Width	Total Ends	Picks Per Inch	Approx. Yards Per Lb.	Minimum Breaking Strength In Lbs.	
ECC11A (Medium Weave) Meets MIL-Y-1140C and spec.41514						
.005"	1/2"	24	35	258	100	
	3/4"	32	35	185	138	
	1"	42	35	140	175	
	1-1/2"	62	35	95	258	
.007"	1/2"	24	22	179	147	
	3/4"	32	32	128	196	
	1"	42	32	97	258	
	1-1/2"	62	32	97	320	
.010"	1/2"	16	21	133	184	
	3/4"	24	21	89	176	
	1"	32	21	68	368	
	1-1/2"	48	21	45	662	
.015"	1/2"	14	16	95	282	
	3/4"	20	16	66	418	
	1"	26	16	50	544	
	1-1/2"	40	16	33	835	
ECC11B (TightWeave) Meets Spec. MIL-Y-1140C • .003 meets GE A2LIC .005 and .007 meet GE spec. A2LIC						
.003"	3/8"	21	42	620	45	
	1/2"	30	42	419	64	
	3/4"	45	42	282	97	
	1"	63	42	206	135	
	1-1/2"	108	42	122	232	
.005"	3/8"	21	39	279	129	
	1/2"	27	39	216	166	
	3/4"	39	39	149	249	
	1"	51	39	113	313	
.007"	1-1/2"	75	39	77	459	
	3/8"	21	39	231	129	
	1/2"	27	39	179	166	
	3/4"	39	39	123	239	
	1"	51	39	94	313	
.010"	1-1/2"	75	39	63	459	
	GLASCON A C-150/CLASS A (COMMERCIAL WEAVE) .004A meets GE A2L12B • .004B meets GE A2L12B Others meet GE A2L7B					
	.004 Glascon A	1/2"	26	24	-	86
		3/4"	38	24	-	131
		1"	50	24	-	157
1-1/4"		62	24	-	196	
1-1/2"		74	24	-	234	
.004 Glascon B	1/2"	26	30	-	86	
	3/4"	38	30	-	131	
	1"	50	30	-	157	
	1-1/4"	62	30	-	196	
	1-1/2"	74	30	-	234	
.005"	1/2"	26	26	-	165	
	3/4"	37	26	-	234	
	1"	49	26	-	310	
	1-1/2"	71	26	-	450	
	2"	83	26	-	-	
.007"	1/2"	26	26	-	165	
	3/4"	37	26	-	234	
	1"	49	26	-	310	
	1-1/2"	62	26	-	450	
	2"	98	26	-	-	
.010"	1/2"	22	16	-	279	
	3/4"	33	16	-	418	
	1"	49	16	-	558	
	1-1/2"	66	16	-	847	
	2"	88	16	-	-	
.015"	1/2"	22	16	-	254	
	3/4"	20	16	-	376	
	1"	26	16	-	490	
	1-1/4"	34	16	-	620	
	1-1/2"	40	16	-	652	
.020"	1/2"	11	14	-	253	
	3/4"	15	14	-	345	
	1"	21	14	-	485	
	1-1/4"	25	14	-	575	
	1-1/2"	31	14	-	713	
.025"	1/2"	20*	14	-	450	
	3/4"	30*	14	-	690	
	1"	40*	14	-	920	
	1-1/4"	52*	14	-	1196	
	1-1/2"	62*	14	-	1426	

*May be woven with two warp ends parallel