



THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

G-Flex Meta-Aramid Paper YT510



Item:	G-Flex Meta-Aramid Paper YT510	
Description:	G-Flex YT510 is a group of insulation aramid papers that offer high dielectric strength, mechanical toughness, flexibility, and resilience. G-Flex YT510 available in thicknesses ranging from 0.05 mm to 0.75 mm (2 mil to 30 mil).	
Applications:	G-Flex YT510 is a form of aramid paper that is widely used in a majority of electrical equipment applications. G-Flex YT510 can be used in almost any electrical products where electrical insulation sheet form is called out by the designers.	
Benefits:	The G-Flex YT510 exhibits exceptional electrical, mechanical, and thermal properties comparable to all alternatives in the market today. The table below shows the typical data for major properties of electrical, mechanical and thermal by standard thickness.	
UL File #:	E521153	YT510 meets ANSI/NEMA FI 3-2004, superseding MIL-1-24204A

YT510 Typical Data											
TGC Part Number			YT510RL0002	YT510RL0003	YT510RL0005	YT510RL0007.5	YT510RL0010	YT510RL0012	YT510RL0015	YT510RL0020	YT510RL0030
Standard Thickness	mil		2	3	5	7	10	12	15	20	30
	mm		0.05	0.08	0.13	0.18	0.25	0.3	0.38	0.51	0.76
Base Weight	g/m ²	ASTM D149	41.5	63	116	170	252	291	376	510	710
Density	g/cc		0.79	0.8	0.9	0.94	0.99	1	0.99	1	0.93
Tensile Strength N/cm	MD	ASTM D882	41	66	130	200	290	340	420	500	650
	CD		17	29	60	75	120	155	250	345	450
Elongation, %	MD	ASTM D882	7.5	9.5	10.5	11.5	11.5	10.5	12	13	13
	CD		7	9.5	11.5	12.5	13.5	10.5	13	13	12
Elmendorf Tear, N	MD	TAPPI 414	0.65	1.05	2.2	3.5	5	6.5	10	13	N/A
	CD		1.1	2.05	3.8	4.8	6	8	13.5	16	N/A
Initial Tear Strength, N	MD	ASTM D1004	16.41	25.07	--	--	79.04	--	114.63	--	--
300° Shrinkage %	MD		3.5	3.5	3	3	3	3	3	3	3
	CD		3	3	2.5	2.5	2.5	2.5	2.5	2	2
Breakdown Voltage (BDV)	kV	ASTM D149	0.81	1.25	2.7	3.9	6.3	6.4	9	8	13.5
Dielectric Strength	V/mil	ASTM D149	406	406	508	533	635	560	580	533	482
	kV/mm		16	16	20	21	25	22	23	21	18
Full Wave Impulse	V/mil	ASTM D3426	1000	1000	1400	1400	1600	N/A	1400	1400	1250
	kV/mm		39	39	55	55	63	N/A	55	55	49
Dielectric Constant	at 60 Hz	ASTM D150	1.6	1.6	2.4	2.7	2.7	2.9	3.2	3.4	3.7
Dissipation Factor	60 Hz(x10 ⁻³)	ASTM D150	4	5	6	6	6	7	7	7	7

Data supplied above are typical values and are not to be considered specification values. All of the information, suggestions and recommendations pertaining to the properties and uses of the products herein are based upon tests and data believed to be accurate; however, the final determination regarding suitability of any material described herein for the contemplated application, the manner of such use, and whether the use infringes any patents is the sole responsibility of the user. There is no warranty, expressed or implied, including, without limitation warranty of merchantability or fitness for a particular purpose. Under no circumstances shall we be liable for incidental or consequential loss or damage.



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G-Flex™ Meta-Aramid Paper

G-Flex™ is The Gund Company's brand of meta-aramid Paper. The Gund Company has used its broad engineering and application knowledge along with extensive testing and global relationships to bring our customers the G-Flex™ Meta-Aramid Paper.

G-Flex™ Meta-Aramid paper YT510 is manufactured from 100% aramid fibers. It carries a Temperature Index (TI) of 210°C, a VTM-O Flame Rating, and full UL approval (File #: E521153). This paper offers high inherent dielectric strength, mechanical toughness, flexibility, and resilience. Applications for G-Flex™ include stator slot liners, phase insulations, coil wrap, conductor wrap, and other insulation applications for the electrical industry.

G-Flex™ Meta-Aramid Paper Benefits

- **Heat Resistance:** G-Flex™ Meta-Aramid paper has long-lasting thermal stability. It can be used for many hours at high temperatures while maintaining excellent dimensional stability. It will not embrittle, soften or melt when it is exposed temporarily at high temperatures of 300°C.
- **Flame Resistance:** It is inherently flame resistant. It does not self-burn or melt in the room air, no combustion-supporting, and has the property of self-extinguishing.
- **Electrical Insulation:** The meta-aramid fiber has very good electrical insulation properties. The dielectric strength of meta-aramid paper more than 20kv/mm.
- **Chemical Stability:** Meta-aramid fiber has a very stable chemical structure.
- **Strong Resistance:** At room temperature, it is resistant to most strong inorganic acids and alkalis.
- **Underwriters Laboratories (UL) recognized:** At 220°C insulation.
- **Sold World-wide:** Directly from The Gund Company and readily available in 12 location.
- **UL certified product:** File # E521153
- **Excellent Properties:** Superior Dielectric Breakdown strength
- **Additional thicknesses are available upon request.**

Common Applications for G-Flex™ Meta-Aramid Papers

- Stator Slot Liners
- Coil Wraps
- Formed Slot liners
- Formed Top Sticks
- Wire Wraps
- Slit into Tape Widths
- Phase Insulation
- Pole Collars
- Laminate Insulation

