



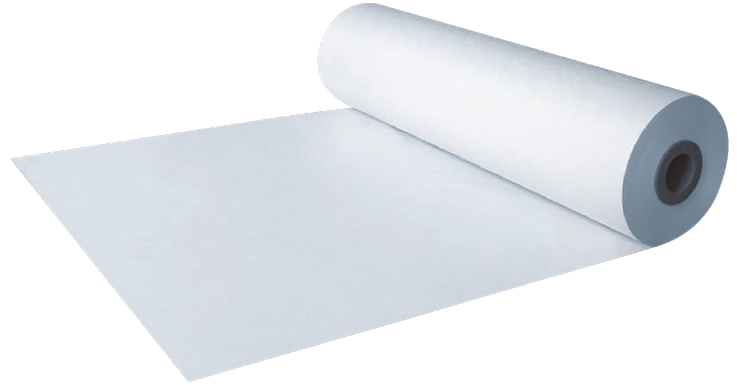
# THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

## G-Flex Meta-Aramid Paper YT510

### Insulation Aramid Papers

G-Flex YT510 is a group of insulation aramid papers that offer high dielectric strength, mechanical toughness, flexibility, and resilience. It is available in thicknesses ranging from 0.05 mm to 0.75 mm (2 mil to 30 mil). G-Flex YT510 is widely used in a majority of electrical equipment applications. It can be used in almost any electrical product where an electrical insulation sheet form is necessary. G-Flex YT510 exhibits exceptional electrical, mechanical, and thermal properties comparable to all alternatives today. The table below shows the typical data for significant electrical, mechanical, and thermal properties by standard thickness.



The UL File number is E521153.

G-Flex YT510 meets ANSI/NEMA FI 3-2004 - superseding MIL-1-24204A.

The Gund Company custom fabricates insulation materials to the exact specifications and drawings specified by our customers. We offer our customers the proper product for their specific application. A variety of dimensions and diameter sizes are available. Additional thicknesses are available upon request.

		ASTM	TYPICAL VALUES									
PROPERTIES		Test Method	Units	YT510RL0002	YT510RL0003	YT510RL0005	YT510RL0007.5	YT510RL0010	YT510RL0012	YT510RL0015	YT510RL0020	YT510RL0030
PHYSICAL	Standard Thickness		mil	2	3	5	7	10	12	15	20	30
	Standard Thickness		mm	0.05	0.08	0.13	0.18	0.25	0.3	0.38	0.51	0.76
	Base Weight	ASTM D149	g/m <sup>2</sup>	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
MECHANICAL	Tensile Strength: MD	ASTM D828	N/cm	41	66	130	200	290	340	420	500	650
	Tensile Strength: CD	ASTM D828	N/cm	17	29	60	75	120	155	250	345	450
	Elongation: MD	ASTM D828	%	9.0	10.0	10.5	11.5	11.5	10.5	12	13	13
	Elongation: CD	ASTM D828	%	7	9.5	11.5	12.5	13.5	10.5	13	13	12
	Elmendorf Tear: MD	TAPPI 414	N	0.65	1.05	2.2	3.5	5	6.5	10	13	N/A
	Elmendorf Tear: CD	TAPPI 414	N	1.1	2.05	3.8	4.8	6	8	13.5	16	N/A
	Initial Tear Strength: MD	ASTM D1004	N	16.41	25.07	-	-	79.04	-	114.63	-	-
	Shrinkage: MD at 300°C	IEC 60819-2	%	3.5	3.5	3	3	3	3	3	3	3
Shrinkage: CD at 300°C	IEC 60819-2	%	3	3	2.5	2.5	2.5	2.5	2.5	2	2	
ELECTRICAL	Breakdown Voltage	ASTM D149	kV	0.81	1.25	2.7	3.9	6.3	6.4	9	8	13.5
	Dielectric Strength	ASTM D149	V/mil	406	406	508	533	635	560	580	533	482
	Dielectric Strength	ASTM D149	kV/mm	16	16	20	21	25	22	23	21	18
	Full Wave Impulse	ASTM D3426	V/mil	1,000	1,000	1,400	1,400	1,600	N/A	1,400	1,400	1,250
	Full Wave Impulse	ASTM D3426	kV/mm	39	39	55	55	63	N/A	55	55	49
	Dielectric Constant	ASTM D150	60 Hz	1.6	1.6	2.4	2.7	2.7	2.9	3.2	3.4	3.7
	Dissipation Factor	ASTM D150	60 Hz (x10 <sup>-3</sup> )	4	5	6	6	6	7	7	7	7

The data supplied are typical values. They are not to be considered specification values. All of the information, suggestions, and recommendations about these properties and uses of the products herein are based on tests and data believed to be accurate; however, the final determination regarding the 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, warranties 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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## MARKETS



*Switchgear*



*Electronics*



*Power Generators*



*Motor Applications*



*Transformers*



*Metals Processing*



*Electric Vehicles*



*Military/Aerospace*



*Oil & Gas*



*Medical*



*Space*

## OUR EXPERTISE IS YOUR COMPETITIVE ADVANTAGE

We manufacture and custom-fabricate a complete line of components for market-specific applications (left column). As TGC better understands these markets – we can expand into other applications for our products.

As an employer, we are one family, acting in accordance with our Core Values: respect, trust, growth, passion, connection, teamwork, integrity, and performance. Collectively, we recognize and serve others so that lives are transformed!

### Material Families:

- Thermoset Rigid Laminates & Composites
- Flexible Laminates, Papers, Films & Felts
- Thermoplastic Materials
- Elastomeric Materials

### Engineering Capabilities:

- Custom Material Development
- Resin Formulation
- Laboratory Testing
- Comparative Materials Evaluation

### Manufacturing Capabilities:

- Compression Molding
- Autoclave & Light RTM Molding
- Pultrusion / Extrusion of Rods & Shapes
- Filament, Convolute & Wet Winding Tubes
- Additive & Injection Molding
- Infusion & B-Stage Composites Lay-Up
- Hand Lay-Up & Spray-Up Molding

### Conversion Capabilities:

- Die, Laser & Knife Cutting
- Waterjet Cutting
- Rotary Die Cutting
- Slitting
- Thermoforming

### Fabrication Capabilities:

- 5-Axis Machining
- CNC Milling
- Routing
- Turning & Lathe Cutting
- Punching
- Bending



## THE GUND COMPANY GLOBAL FOOTPRINT

