



MANUFACTURERS OF
ELECTRICAL INSULATION MATERIALS

INSULATING COMPONENTS FOR
POWER SYSTEMS EQUIPMENT

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MATERIAL DATA SHEET

Item: Mylar® Polyester Film, Types EL-21 & MO/MO-21

Description: Mylar® polyester film is a flexible, strong, and durable film with an unusual balance of properties making it suitable for many industrial applications.

Type EL-21 is a tough insulating film designed for general purpose electrical and electronics applications, such as transformers, coils, magnet wire, bus bars, membrane switches, and printed circuits. It is also used as a backing for other insulation.

Type MO/MO-21 is similar to EL-21 and designed specifically for electric motor insulation. It is used as phase, wedge, and slot liner insulation.

		English Units	SI Units
Availability:	Type EL-21:	Thickness: .48 mils, .75 mils, .92 mils, 1.42 mils, 1.97 mils, 2.97 mils, 4.91 mils	.012 mm, .019 mm, .023 mm, .036 mm, .051 mm, .076 mm, .127 mm, .127 mm, .19 mm, .229 mm, .254 mm, .356 mm
	Type MO/MO-21:	Thickness: 4.91 mils, 7.5 mils, 9 mils, 10 mils, 14 mils	

Fabricated Parts: The Gund Company custom fabricates insulation materials to the exact specifications and drawings of our customers

Type EL-21

Key Characteristics	Test Method	Units	Typical Values (mils)						
			.48	.75	.92	1.42	1.97	2.97	4.91
Tensile Strength, MD	ASTM D-882	psi	26,000	26,000	26,000	26,000	26,000	26,000	26,000
Tensile Modulus, MD	ASTM D-882	psi	550,000	550,000	550,000	550,000	550,000	550,000	550,000
Elongation, MD	ASTM D-882	%	105	130	130	140	140	150	150
Density	ASTM D-1505	g/cm ³	1.392	1.392	1.392	1.392	1.392	1.392	1.392
Shrinkage, 150°C for 30 min.	ASTM D-1204	%	2.0	2.0	2.0	2.0	1.5	1.5	1.5
Dielectric Strength, 25°C	ASTM D-149	kV	3.5	4.0	4.5	6.0	8.0	11.0	14.0
Dielectric Constant, 25°C	ASTM D-150	--	3.2	3.2	3.2	3.2	3.2	3.2	3.2

Type MO/MO-21

Key Characteristics	Test Method	Units	Typical Values (mils)				
			4.91	7.5	9	10	14
Tensile Strength, MD	ASTM D-882	psi	26,000	27,000	27,000	27,000	23,000
Tensile Modulus, MD	ASTM D-882	psi	500,000	490,000	480,000	430,000	410,000
Elongation, MD	ASTM D-882	%	150	150	160	170	180
Density	ASTM D-1505	g/cm ³	1.392	1.392	1.391	1.391	1.391
Shrinkage, 150°C for 30 min.	ASTM D-1204	%	1.5	1.5	1.5	1.5	1.5
Dielectric Strength, 25°C	ASTM D-149	kV	14.0	18.0	19.0	20.0	20.5
Dielectric Constant, 25°C	ASTM D-150	--	3.2	3.2	3.2	3.2	3.2

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 the suitability of any material described herein for the use contemplated, 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.