



THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

PolyPro FR[®] Flame Retardant PolyPropylene

PolyPro FR[®] is a flame retardant polypropylene with a UL 94 V-0 flame class rating and features that make it an economical choice for electrical insulation applications. The material is available in a range of standard thicknesses from 0.010" to 0.125". PolyPro FR[®] can be fabricated into many designs using cost-effective fabrication methods such as die-cutting and knife-cutting. It also exhibits excellent formability characteristics - allowing quick formation into three-dimensional shapes. PolyPro FR[®] provides a lower-cost alternative for designs using these materials: Formex[®], Nomex[®] 410, and Valox[®]. It is UL, RoHs, and REACH certified to ensure reliability, safety, and consistency.

UL File Number: E228440.

PROPERTIES		ASTM	TYPICAL VALUES		
		Test Method	Units	PolyPro FR [®] 10	PolyPro FR [®] 17
PHYSICAL	Density	ASTM D792	lbs/in ³	0.037	0.037
	Density	ASTM D792	gm/cm ³	1.035	1.035
	Oxygen Index	ASTM D2863	%	28	28
	Water Absorption	ASTM D570	%	0.01	0.01
MECHANICAL	Tensile Strength: Yield	ASTM D882	PSI	5,194	4,648
	Tensile Elongation: Yield	ASTM D882	%	>100	>100
	Flexural Modulus	ASTM D790	KSI	311	303
	Flexural Strength	ASTM D790	PSI	8,052	7,905
	IZOD Impact Strength	ASTM D256	ft-lbs/in	0.13	0.22
THERMAL	Flammability	UL 94		VTM-0	V-0
	Heat Deflection Temp. (66 PSI, 0.0125")	ASTM D648	°F	235	235
	Heat Deflection Temp. (66 PSI, 0.0125")	ASTM D648	°C	113	113
	Dissipation Factor	ASTM D150		0.0009	0.0009
ELECTRICAL	Dielectric Strength	ASTM D149	V/mil	19,900	24,800
	Volume Resistivity	ASTM D257	ohm-cm	10 ¹⁶	10 ¹⁶
	Dielectric Constant	ASTM D150		2.3	2.3
	Dielectric Breakdown	ASTM D149	V	10 ¹⁶	10 ¹⁶
	Comparative Tracking Index	ASTM D3638		600+	600+

LAMINATE SHEET AVAILABILITY

SHEET SIZE

• 24" x 24" or 48" x 96"

ROLL WIDTH

• 24" or 48"

THICKNESS

• 0.010" to 0.125"

LAMINATE SHEET AVAILABILITY (SI)

SHEET SIZE

• 61 cm x 61 cm or
122 cm x 244 cm

ROLL WIDTH

• 61 cm or 122 cm

THICKNESS

• 0.25 mm to 3.18 mm

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. Product colors vary according to material type.



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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PolyPro FR[®]

Flame Retardant PolyPropylene

		ASTM	TYPICAL VALUES								
PROPERTIES	Test Method	Units	PolyPro EV 10	PolyPro EV 17	PolyPro FR 10	PolyPro FR 17	Propellis FR	Propellis HT	G-Flex YT510	G-Flex YT510	
PHYSICAL	Standard Color		Blue	Blue	Black/White	Black/White	Light Green	Amber	Tan	Tan	
	Thickness	in	0.010	0.017	0.010	0.017	0.007	0.007	0.002	0.005	
	Available Thickness	in	0.010 - 0.125	0.010 - 0.125	0.010 - 0.125	0.010 - 0.125	0.005 - 0.013	0.005 - 0.013	0.002 - 0.030	0.002 - 0.030	
	Density	ASTM D792	lbs/in ³	0.033	0.033	0.037	0.037	0.049	0.049	-	-
	Density	ASTM D792	g/cm ³	0.91	0.91	1.035	1.035	-	-	0.79	0.90
MECHANICAL	Compressive Strength	ASTM D695	PSI (MPa)	6,000	6,000	6,000	6,000	(1.36)	(1.36)	-	-
	Tensile Strength: LW	ASTM D638	PSI	5,200	4,800	5,200	4,700	21,000	21,000	-	-
	Tensile Strength: CW	ASTM D638	PSI	3,200	3,200	3,200	3,200	15,000	15,000	-	-
	Tensile Strength: LW	ASTM D828	N/cm	-	-	-	-	-	-	41	130
	Tensile Strength: CW	ASTM D828	N/cm	-	-	-	-	-	-	17	60
	Tensile Elongation: Yield	ASTM D882	%	>100	>100	>100	>100	-	-	7	11.50
THERMAL	Rel. Thermal Index: Elect.	UL746B	°F	230	230	230	230	266	310	410	410
	Rel. Thermal Index: Elect.	UL746B	°C	110	110	110	110	130	155	210	210
	Rel. Thermal Index: Mech.	UL746B	°F	230	230	230	230	266	310	-	-
	Rel. Thermal Index: Mech.	UL746B	°C	110	110	110	110	130	155	210	210
	Flammability	ASTM D149		NR	HB	VO	VO	FR	HB	VTM-0	VTM-0
Dissipation Factor	UL 94		0.0009	0.0009	0.0009	0.0009	0.014	0.015	0.004	0.004	
ELECTRICAL	Dielectric Strength	ASTM D149	V/mil	2,000	1,500	2,000	1,500	1,000	1,000	406	508
	Dielectric Breakdown	ASTM D150	V	19,900	24,800	19,900	24,800	7,100	7,100	1,500	2,000
	Dielectric Constant	ASTM D150		2.20	2.20	2.30	2.30	4.40	4.70	1.60	1.60

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