

## Grade 1580

### Flame-Resistant Laminate

- NEMA GPO-3
- Highly Flame-Resistant
- UL94 V0 Flame Rating
- Combines High Arc and Track Resistance
- UL® Recognized
- Outstanding Punchability
- Asbestos-Free

Grade 1580 is an easily fabricated laminate that exhibits excellent flame resistance.

Grade 1580 Flame-Resistant Laminate meets the UL94 V0 specification of Underwriters Laboratories. This material was originally designed to meet the television industry's safety assurance requirements.

Grade 1580 Laminate is a Class F material with a UL temperature index of 120° C Electrical and 140° C Mechanical.

Grade 1580 is available in thicknesses of  $\frac{1}{32}$  through  $\frac{3}{32}$  inches and the standard color is white.

### Arc Stack Assembly And Flyback Transformer

Grade 1580 has exceptional flame resistance, arc resistance and a high temperature capability for applications such as flyback transformers and arc stack assemblies.





## Grade 1580

	UNIT	ASTM/UL Number	Grade 1580
<b>General Information</b>			
Part Number			1580
Standard Color			White
<b>Mechanical Properties</b>			
NEMA Grade			GPO-3
Tensile Strength	Psi	D638	8,400
Tensile Modulus	Psi X 10 <sup>6</sup>	D638	1.8
Flexural Strength	Psi	D790	24,600
Flexural Strength – 130°C	Psi	D790	8,470
Compressive Strength	Psi	D695	31,200
Shear Strength	Psi	D732	12,000
IZOD Impact Strength (notched)	ft.lb./in.	D256	8.9
Water Absorption	% by wt.	D570	0.2
Specific Gravity	–	D792	1.83
<b>Electrical Properties</b>			
Electrical Strength – Perpendicular S/T in Air	Vpm	D149	425
Electrical Strength – Perpendicular S/T in Oil	Vpm	D149	577
Electrical Strength – Parallel S/S in Oil	kV	D149	47
Arc Resistance	Sec.	D495	181
IEC Track Resistance (CTI)	V.	UL746A	>600
UL High Voltage Track Rate	In./Min.	UL746A	0
Permittivity, 60 Hz	–	D150	4.2
Dissipation Factor, 60 Hz	–	D150	.011
Permittivity, MHz	–	D150	4
Dissipation Factor, MHz	–	D150	0.01
Insulation Resistance	Ohm x 10 <sup>12</sup>	D257	823
<b>Flame Resistance Properties</b>			
UL Subject 94	–	UL94	VO
UL Hot Wire Ignition	Sec.	UL746A	300+
UL High Amp Ignition	# Exposure	UL746A	200+
Oxygen Index	%O <sub>2</sub>	D2863	39
Ignition Time	Min.	–	84
Burn Time	Min	–	23
<b>Thermal Properties</b>			
Coefficient of Thermal Expansion	In/In/°C x 10 <sup>-5</sup>	D696	2
Thermal Conductivity	BTU/HR/Ft <sup>2</sup> /In/°F	C177	1.9
UL Temperature Index			
– Electrical	°C	UL 746B	120
– Mechanical	°C	UL 746B	140
UL Recognition File Number	–	–	E81928

Typical average values for testing 0.063" thick material. Values will vary somewhat from thickness to thickness within a material grade.



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