



ITW Electronic Components FORMEX
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FORMEX™ N3 PRODUCT DATA

FLAME RETARDANT POLYCARBONATE SHEET

	TEST METHOD	FORMEX™ N3-8	FORMEX™ N3-10
Color		Natural & Black	Natural & Black
MANUFACTURING SPECIFICATION			
Thickness			
inches		0.008 (+0.001 / -0.001)	0.010 (+0.0015 / -0.0015)
millimeters		0.20 (+0.03 / -0.03)	0.25 (+0.04 / -0.04)
UL FLAMMABILITY RATING / PERFORMANCE LEVELS			
Flammability	UL 94	VTM-0	VTM-0
Relative Temperature Index	UL 746B		
Electrical		130°C / 266°F	130°C / 266°F
Mechanical Without Impact		130°C / 266°F	130°C / 266°F
High Current Arc Ignition - PLC (arcs to ignite)	UL 746A	1	1
High Voltage Arc Tracking - PLC (in / min)	UL 746A	1	1
Hot Wire Ignition - PLC (seconds)	UL 746A	4	4
Comparative Tracking Index - PLC	ASTM D-3638	3	3
Furnished As		Multiple layers of sheets	Multiple layers of sheets
Voltage Meets Mandrel Test, VAC	IEC 60950-1	7,000	7,000
TYPICAL MECHANICAL PROPERTIES VALUES			
Tensile Yield - psi	ASTM D-882 / ISO 527-1,-2		
Machine Direction		7,200	7,200
Transverse Direction		6,900	6,900
TYPICAL PHYSICAL PROPERTIES VALUES			
Density - gm / cc	ASTM D-792 / ISO 1183-1, Method A	1.21	1.21
Oxygen Index - %	ASTM D-2863 / ISO 4589--1,-2	29	29
Water Absorption - % Change in weight	ASTM D-570	0.24%	0.24%
	ISO 62, Method 4	0.14%	0.14%
Heat Deflection Temperature under load	ASTM D-648 0.45MPa / ISO 75-1,-2, Method B	140°C / 284°F	140°C / 284°F
TYPICAL ELECTRICAL PROPERTIES VALUES			
Comparative Tracking Index - volts	IEC 60112	175	175
Dielectric Breakdown - volts	ASTM D-149 / IEC 60243-1	16,029	17,587
Dielectric Strength - volts / mil	ASTM D-149 / IEC 60243-1	2,004	1,759
Volume Resistivity - ohm-cm	ASTM D-257 / IEC 62631-3-1	1.2 x 10 ¹⁶	1.2 x 10 ¹⁶
Dielectric Constant	ASTM D-150 / IEC 60250, 1MHz	2.22	2.22
Dissipation Factor	ASTM D-150 / IEC 60250, 1MHz	0.0072	0.0072
PACKAGING INFORMATION			
Standard Configuration		Roll	Roll
Core ID - inches (millimeters)		6 (152)	6 (152)
Roll OD - inches (millimeters) (approximate)		17 (432)	17 (432)
Roll Width - inches (millimeters)		24 (610)	24 (610)
Roll Weight - lbs (kgs) (approximate)		202 (92)	220 (100)
Length / Roll - feet (meters)		2,000 (609.6)	1,750 (533.4)
Area / Roll - square feet (square meters)		4,000 (371.6)	3,500 (325.2)

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