

# Resiten® G10FR4

Phenolic

ITEN INDUSTRIES

## Message:

Phenolic materials were first used as insulation in the electrical industry with the invention of Bakelite about one hundred years ago. Since that time, the chemistry, additives and processing have been highly refined. Today, Phenolic materials are found in all facets of our daily lives. They insulate our electric light bulbs and beautify the counter tops in our kitchens. Handles on our pots and pans withstand high temperatures. Massive mounting bases support high voltage switching equipment.

Iten Industries processes Phenolic resin into a wide range of laminates that find their way into market areas from high voltage electrical, low voltage electrical to laser engraved signage. The laminate sheets are processed by the compression molding method. A wide range of reinforcing substrates is used. A full spectrum of sizes and thicknesses is available.

PRODUCTS: ANSI / NEMA

PAPER PHENOLIC: X(P) / XX(P) / XXX(P) / XPC

CANVAS PHENOLIC: C / CE

LINEN PHENOLIC: L / LE

GLASS PHENOLIC: G3

General Information			
Features	Good Electrical Properties		
Uses	Laminates		
	Sheet		
Agency Ratings	EC 1907/2006 (REACH)		
RoHS Compliance	RoHS Compliant		
Appearance	Colors Available		
Forms	Sheet		
Processing Method	Compression Molding		
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>1</sup>			
Across Flow : Yield	269	MPa	
Flow : Yield	403	MPa	
Flexural Strength			
-- <sup>2</sup>	456	MPa	
-- <sup>3</sup>	585	MPa	
Compressive Strength			
-- <sup>4</sup>	291	MPa	
-- <sup>5</sup>	296	MPa	
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact <sup>6</sup>			
Across Flow	510	J/m	ASTM D256
Flow	880	J/m	
Electrical	Nominal Value	Unit	Test Method
Dielectric Strength	19	kV/mm	ASTM D149
Relative Permittivity			ASTM D150

1 MHz <sup>7</sup>	4.89		
1 MHz <sup>8</sup>	4.79		
Dissipation Factor <sup>9</sup> (1 MHz)	0.016		ASTM D150
Arc Resistance			ASTM D495
-- <sup>10</sup>	117	sec	
-- <sup>11</sup>	126	sec	
Dielectric Breakdown			ASTM D149
-- <sup>12</sup>	45200	V	
-- <sup>13</sup>	80000	V	

#### NOTE

1. Condition A
2. Across Flow, Condition A
3. Flow, Condition A
4. Across Flow, Condition A
5. Flow, Condition A
6. E48/50
7. D24/23
8. Condition A
9. D24/23
10. D48/50
11. Condition A
12. D48/50
13. Condition A

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#### Recommended distributors for this material

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