



## FM 7700P

<b>Description</b>	FM 7700P is a two-stage phenolic molding compound reinforced with cotton fabric in pellet form. FM-7700P is recommended to customers desiring approval under ASTM D-5948-96, Type CFI-20. (Replaces Military Specification MIL-M-14H.)
<b>Available colors</b>	Black
<b>Available molding grades</b>	Compression, Transfer, Injection
<b>Form</b>	Pellet

PHENOLIC

Properties		International Units		English Units		Method	
Physical	Specific Gravity	<b>1.38</b>		<b>1.38</b>		ASTM D792	
	Apparent (Powder) density	<b>0.3</b>	g/cm <sup>3</sup>	<b>2.5</b>	lb/gal	ASTM D1895	
	Molding shrinkage	<b>0.3</b>	%	<b>0.0030</b>	in/in	ASTM D955	
	Post shrinkage	-	%	-	in/in	ASTM D955	
	Water absorption						
	24 hour	<b>0.6</b>	%	<b>0.6</b>	%	ASTM D570	
	48 hour	<b>2.2</b>	%	<b>2.2</b>	%	ASTM D570	
Thermal	Temperature of deflection under load						
		As Molded	<b>180</b>	°C at 1.8 MPa	<b>356</b>	°F at 264 psi	ASTM D648A
		Post Baked	-	°C at 1.8 MPa	<b>&gt;540</b>	°F at 264 psi	ASTM D648A
	Thermal Conductivity		-	W/mK	-	W/mK	ASTM C518
	UL Temperature Index		<b>150</b>	°C	<b>302</b>	°F	UL 746B
	UL-flammability	3.2 mm	-		-		UL 94
		1,6 mm	<b>94HB</b>		<b>94HB</b>		UL 94
Mechanical	Coefficient of linear thermal expansion						
		parallel	<b>20</b>	10 E-6/°C	<b>11</b>	10 E-6/°F	ASTM E831
		perpendicular	-	10 E-6/°C	-	10 E-6/°F	ASTM E831
	Flexural strength		<b>86</b>	MPa	<b>12,500</b>	psi	ASTM D790
	Flexural modulus		<b>9</b>	GPa	<b>1.3</b>	Mpsi	ASTM D790
	Tensile strength		<b>41</b>	MPa	<b>6000</b>	psi	ASTM D638
	Izod impact strength, notched		<b>103</b>	J/m	<b>1.9</b>	ft lb/in	ASTM D256A
	Compressive strength		<b>165</b>	MPa	<b>24,000</b>	Psi	ASTM D695
Electrical	Rockwell Hardness						
		M Scale	-		-		
		E Scale	<b>105</b>		<b>105</b>		
Electrical	Dielectric Constant, 1 MHz, wet		-	-	-	ASTM D150	
	Dissipation Factor, 1 MHz, wet		-	-	-	ASTM D150	
	Arc Resistance		-	Seconds	-	Seconds	ASTM D495
	Dielectric strength, 60 Hz, dry	ST	<b>5.5</b>	kV/mm	<b>140</b>	V/mil	ASTM D149
		SS	<b>3.1</b>	kV/mm	<b>80</b>	V/mil	ASTM D149
Tracking resistance		-	V	-	V	ASTM D3638 (IEC 112)	

Properties measured on compression molded ASTM specimens. Values are typical, not statistical minimums.

Contact your Sumitomo Bakelite representative for specifications and post baking recommendations.

ST = short time. SS = step-by-step. Wet = immersed in H<sub>2</sub>O for 48 hrs. at 50 °C prior to testing.

Certification to ASTM D-5948 requires batch testing. All testing in accordance with ASTM D-5948. ASTM D-5948 supersedes MIL-M-14.

RoHS: FM 7700P is in compliance with RoHS2 (2011/65/EU, Restriction of Hazardous Substances).

PFOS: FM 7700P does not contain perfluorooctanesulfonate (PFOS) according to European Directive 2006/122/EC.

REACH/SVHC : FM 7700P does not contain any Substances of Very High Concern (SVHC) as listed on the candidate list published by ECHA..

Revision Date: 7/8/2014. Shelf life 1 year when stored at 70 °F maximum.

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