

## Engineering Thermoset Material

### FM 8720

<b>Description</b>	FM 8720 is a high gravity, mellatic powder phenolic novolac molding compound.
<b>Available colors</b>	Black
<b>Available molding grades</b>	Compression, Transfer
<b>Form</b>	Granular

PHENOLIC

Properties <sup>1</sup>		Typical Value	Unit	Method
Physical	Specific Gravity	<b>3.7</b>	g/cm <sup>3</sup>	ASTM D792
	Apparent (Powder) density	-	g/cm <sup>3</sup>	ASTM D1895
	Molding shrinkage	<b>0.3</b>	%	ASTM D955
	Post shrinkage	-	%	ASTM D955
	Water absorption	-	%	ASTM D570
	24 hour	-	%	ASTM D570
	48 hour	-	%	ASTM D570
Thermal	Temperature of deflection under load	-	°C at 1,8 MPa	ASTM D648A
		As Molded	-	°C at 1,8 MPa
		Post Baked	<b>&gt; 282</b>	°C at 1,8 MPa
	Thermal Conductivity	-	W/mK	ASTM C518
	UL Temperature Index	-	°C	UL 746B
	UL-flammability	3.2 mm	-	-
	1,6 mm	-	-	UL 94
Coefficient of linear thermal expansion	parallel	-	10 E-6/°C	ASTM E831
	perpendicular	-	10 E-6/°C	ASTM E831
Mechanical	Flexural strength	<b>80</b>	MPa	ASTM D790
	Flexural modulus	<b>17</b>	GPa	ASTM D790
	Strain to failure in flexure	-	%	ASTM D790
	Tensile strength	<b>48</b>	MPa	ASTM D638
	Izod impact strength, notched	-	J/m	ASTM D256A
	Compressive strength	<b>260</b>	MPa	ASTM D695
	Rockwell Hardness, E Scale	-		ASTM D785
Electrical	Dielectric Constant, 1 MHz, wet	-		ASTM D150
	Dissipation Factor, 1 MHz, wet	-		ASTM D150
	Arc Resistance	-	Seconds	ASTM D495
	Dielectric strength, ST	-	kV/mm	ASTM D149
	60 Hz, wet SS	-	kV/mm	ASTM D149
	Tracking resistance	-	V	ASTM D3638 (IEC 112)

<sup>1</sup> Properties measured on compression molded ASTM specimens

<sup>2</sup> Values are typical, not statistical minimums. Contact your Sumitomo Bakelite representative for specifications.

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.

Contact your Sumitomo Bakelite representative for post baking recommendations.

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