



## 52-40-40-P

<b>Description</b>	52-40-40-P is a long glass fiber reinforced diallyl phthalate molding compound, which meets the requirements of ASTM D5948 Type GDI-30F.
<b>Available colors</b>	Green, Red
<b>Available molding grades</b>	Compression, Transfer
<b>Form</b>	Coarse Flakes

Properties		International Units		English Units		Method
Physical	Specific Gravity	<b>1.79</b>		<b>1.79</b>		ASTM D792
	Apparent (Powder) Density	<b>0.30</b>	g/cm <sup>3</sup>	<b>2.5</b>	lb/gal	ASTM D1895
	Molding Shrinkage	<b>0.15 - 0.35</b>	%	<b>0.0015 - 0.0035</b>	in/in	ASTM D955
	Post Shrinkage	-	%	-	in/in	ASTM D955
	Water Absorption		%		%	ASTM D570
Thermal	24 hour	-	%	-	%	ASTM D570
	48 hour	<b>0.32</b>	%	<b>0.32</b>	%	ASTM D570
	Temperature of deflection under load		°C at 1.8 MPa		°F at 264 psi	ASTM D648A
	As Molded	<b>260</b>	°C at 1.8 MPa	<b>500</b>	°F at 264 psi	ASTM D648A
	Post Baked	<b>&gt;280</b>	W/mK	<b>&gt;536</b>	W/mK	ASTM C518
	Thermal Conductivity	<b>0.31</b>	W/mK	<b>0.31</b>	W/mK	ASTM C518
	Oxygen Index	<b>30</b>	%	<b>30</b>	%	ASTM D2863
	UL Temperature Index	-	°C	-	°F	UL 746B
	UL-Flammability					UL 94
	3.2 mm	-		-		UL 94
1.6 mm	-		-		UL 94	
Mechanical	Coefficient of linear thermal expansion		10 E-6/°C		10 E-6/°F	ASTM E831
	parallel	<b>22</b>	10 E-6/°C	<b>12</b>	10 E-6/°F	ASTM E831
	perpendicular	-		-		ASTM E831
	Flexural Strength	<b>125</b>	MPa	<b>18,100</b>	psi	ASTM D790
	Flexural Modulus	<b>13.8</b>	GPa	<b>2.0</b>	Mpsi	ASTM D790
	Tensile strength	-	MPa	-	psi	ASTM D638
Electrical	Izod Impact Strength, notched	<b>52</b>	J/m	<b>0.96</b>	ft lb/in	ASTM D256A
	Compressive Strength	<b>187</b>	MPa	<b>27,100</b>	Psi	ASTM D695
	Rockwell Hardness					ASTM D785
	M Scale	-		-		ASTM D785
	E Scale	-		-		ASTM D785
	Dielectric Constant, 1 MHz, wet	<b>4.3</b>		<b>4.3</b>		ASTM D150
	Dissipation Factor, 1 MHz, wet	<b>0.016</b>		<b>0.016</b>		ASTM D150
Arc Resistance	<b>133</b>	Seconds	<b>133</b>	Seconds	ASTM D495	
Dielectric Strength, ST, dry/wet	<b>-/-</b>	kV/mm	<b>-/-</b>	V/mil	ASTM D149	
60 Hz	<b>-/-</b>	kV/mm	<b>-/-</b>	V/mil	ASTM D149	
Tracking Resistance	<b>&gt;600</b>	V	<b>&gt;600</b>	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: 52-40-40-P is in compliance with RoHS2 (2011/65/EU, Restriction of Hazardous Substances).

PFOS: 52-40-40-P does not contain perfluorooctansulfonate (PFOS) according to European Directive 2006/122/EC.

REACH/SVHC : 52-40-40-P does not contain any Substances of Very High Concern (SVHC) as listed on the candidate list published by ECHA.

Revision Date: 7/2/2014. Shelf life 12 months when stored at 70 °F maximum.

The information presented in this document is provided in good faith, but no warranty is given or is to be implied regarding its accuracy or relevance to any particular application. Users must satisfy themselves regarding the suitability and safety of their use of the information and products in the application concerned.

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