

**Product Texts**

40% Glass Reinforced, Heat Stabilized

ISO 1043 PA6-GF40

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Molding shrinkage, parallel	0.3 / *	%	ISO 294-4, 2577
<sup>[C]</sup> Molding shrinkage, normal	0.8 / *	%	ISO 294-4, 2577
<sup>[C]</sup> Density of melt	1260	kg/m <sup>3</sup>	-
<sup>[C]</sup> Thermal conductivity of melt	0.32	W/(m K)	-
<sup>[C]</sup> Spec. heat capacity of melt	2080	J/(kg K)	-
<sup>[C]</sup> Eff. thermal diffusivity	1.2E-7	m <sup>2</sup> /s	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	13000 / 8000	MPa	ISO 527
<sup>[C]</sup> Stress at break	205 / 140	MPa	ISO 527
<sup>[C]</sup> Strain at break	3.3 / 6	%	ISO 527
<sup>[C]</sup> Charpy impact strength, +23°C	95 / 100	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	85 / 85	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	15 / 22	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	12 / 13	kJ/m <sup>2</sup>	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melting temperature, 10°C/min	220 / *	°C	ISO 11357-1/-3
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	210 / *	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	220 / *	°C	ISO 75-1/-2
<sup>[C]</sup> Vicat softening temperature, B	215 / *	°C	ISO 306
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	20 / *	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	50 / *	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	-
Yellow Card available	yes / *	-	-
<sup>[C]</sup> Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	3.0 / *	mm	-
Yellow Card available	yes / *	-	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Relative permittivity, 100Hz	3.5 / 14	-	IEC 62631-2-1
<sup>[C]</sup> Relative permittivity, 1MHz	3.3 / 4.4	-	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 100Hz	50 / 3000	E-4	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 1MHz	150 / 1100	E-4	IEC 62631-2-1
<sup>[C]</sup> Volume resistivity	1E12 / 1E10	Ohm*m	IEC 62631-3-1
<sup>[C]</sup> Surface resistivity	* / 1E13	Ohm	IEC 62631-3-2
<sup>[C]</sup> Electric strength	35 / 25	kV/mm	IEC 60243-1
<sup>[C]</sup> Comparative tracking index	* / 500	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
<sup>[C]</sup> Water absorption	5.5 / *	%	Sim. to ISO 62
<sup>[C]</sup> Humidity absorption	1.7 / *	%	Sim. to ISO 62
<sup>[C]</sup> Density	1450 / -	kg/m <sup>3</sup>	ISO 1183

[C]: CAMPUS

**Akulon® K224-HG8**

PA6-GF40

Envalior

<b>Processing Recommendation Injection Molding</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Pre-drying - Temperature	<b>80</b>	°C	-
Pre-drying - Time	<b>2 - 8</b>	h	-
Processing humidity	<b>≤0.5</b>	%	-
Melt temperature	<b>250 - 285</b>	°C	-
Mold temperature	<b>50 - 80</b>	°C	-
Zone 1	<b>255 - 265</b>	°C	-
Zone 2	<b>265 - 275</b>	°C	-
Zone 3	<b>265 - 280</b>	°C	-
Nozzle temperature	<b>260 - 280</b>	°C	-

**Characteristics****Processing**

Injection Molding

**Special Characteristics**

Heat stabilized or stable to heat

**Delivery form**

Pellets

**Regional Availability**

North America, Europe, Asia Pacific

**Other text information****Injection molding**[Injection Molding Recommendations](#)[Steel recommendations for molds screws and barrels](#)[Trouble shooting guideline for injection molding](#)