

# A1030GFL45

Type : 45% Glass fiber-reinforced

Identification mark : PA6-GF45

Property	Test conditions	Standard	Unit	DAM	Conditioned (50%RH)	
MECHANICAL	Tensile stress at yield	ISO 527-1,-2	MPa	210	150	
	Tensile stress at break					
	Tensile modulus		MPa	14700	9200	
	Tensile strain at yield		%	3	4	
	Tensile strain at break					
	Flexural strength	ISO 178	MPa	325	220	
	Flexural modulus		MPa	13500	8800	
	Charpy impact strength	unnotched	ISO 179/1eU	kJ/m <sup>2</sup>	79	92
	Charpy impact strength	notched	ISO 179/1eA		18	23
	Rockwell Hardness	R Scale	ISO 2039-2	—	122	109
THERMAL	Thermal conductive	Planar direction	W/(m·K)			
		Thickness direction				
	Coefficient of linear thermal expansion	flow transverse	ISO 11359-2	10 <sup>-4</sup> /°C	0.2	
Temperature of deflection under load	1.8MPa	ISO 75-1,-2	°C	205		
	0.45MPa			220		
ELECTRICAL	Volume resistivity	IEC 62631-3-1	Ω·m	10 <sup>13</sup>	10 <sup>11</sup>	
	Electric strength	t:1mm	IEC 60243-1	kV/mm	42	40
	Relative permittivity	10 <sup>6</sup> Hz	IEC 62631-2-1	—	3.3	
	Dissipation factor	10 <sup>6</sup> Hz	IEC 62631-2-1	—	0.022	0.12
	Comparative tracking Index		IEC 60112	—	550	
OTHERS	Density	ISO 1183	g/cm <sup>3</sup>	1.5		
	Water absorption	23°C,50%RH	ISO 62	%	1.5	
	Mold shrinkage	flow	UNITIKA Method 3mmt	%	0.1	
		transverse			0.3	
	MVR	275°C,5kg	ISO 1133	cm <sup>3</sup> /10min	40	
	Flammability	0.86mmt	UL94 File No.E47924	—	HB	
Mold conditions	Cylinder Temperature		°C	250-270		
	Mold temperature		°C	80-120		

The data listed here are typical of average lots and not guaranteed values .