

DSM Engineering Plastics - Property Data

Akulon® K224-HG4

PA6-GF20

20% Glass Reinforced, Heat Stabilized

Properties	Typical Data	Unit	Test Method
RHEOLOGICAL PROPERTIES		dry / cond	
Molding shrinkage (parallel)	0.25 / *	%	ISO 294-4
Molding shrinkage (normal)	1.1 / *	%	ISO 294-4
MECHANICAL PROPERTIES		dry / cond	
Tensile modulus	7300 / 4300	MPa	ISO 527-1/-2
Stress at break	145 / 85	MPa	ISO 527-1/-2
Strain at break	3.5 / 10	%	ISO 527-1/-2
Charpy impact strength (+23°C)	65 / -	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	55 / -	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	10 / -	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	8 / -	kJ/m ²	ISO 179/1eA
THERMAL PROPERTIES		dry / cond	
Melting temperature (10°C/min)	220 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	200 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	215 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.3 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.9 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.6 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.71 / *	mm	IEC 60695-11-10
ELECTRICAL PROPERTIES		dry / cond	
Relative permittivity (100Hz)	4.3 / 17	-	IEC 60250
Relative permittivity (1 MHz)	4 / 4.5	-	IEC 60250
Dissipation factor (100 Hz)	60 / 1500	E-4	IEC 60250
Dissipation factor (1 MHz)	160 / 1200	E-4	IEC 60250
Volume resistivity	5E12 / 2E12	Ohm*m	IEC 60093
Surface resistivity	* / 5E13	Ohm	IEC 60093
Comparative tracking index	475 / 475	-	IEC 60112
OTHER PROPERTIES		dry / cond	
Water absorption	7.2 / *	%	Sim. to ISO 62
Humidity absorption	2.15 / *	%	Sim. to ISO 62
Density	1270 / -	kg/m ³	ISO 1183

