

DSM Engineering Plastics - Property Data

Akulon® Ultraflow™ K-FG9

PA6-GF45

Properties	Typical Data	Unit	Test Method
RHEOLOGICAL PROPERTIES			
	dry / cond		
Molding shrinkage (parallel)	0.2 / *	%	ISO 294-4
Molding shrinkage (normal)	0.9 / *	%	ISO 294-4
MECHANICAL PROPERTIES			
	dry / cond		
Tensile modulus	14000 / 9500	MPa	ISO 527-1/-2
Stress at break	205 / 150	MPa	ISO 527-1/-2
Strain at break	3 / 6	%	ISO 527-1/-2
Charpy impact strength (+23°C)	100 / 105	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	80 / 80	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	19 / 28	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	14 / 14	kJ/m ²	ISO 179/1eA
Flexural modulus	12500 / -	MPa	ISO 178
Flexural strength	330 / -	MPa	ISO 178
THERMAL PROPERTIES			
	dry / cond		
Melting temperature (10°C/min)	220 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	210 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	220 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.1 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.5 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.6 mm nom. thickn.	HB / *	class	IEC 60695-11-10
ELECTRICAL PROPERTIES			
	dry / cond		
Relative permittivity (100Hz)	3.5 / 14	-	IEC 60250
Relative permittivity (1 MHz)	3.3 / 4.3	-	IEC 60250
Dissipation factor (100 Hz)	50 / 3000	E-4	IEC 60250
Dissipation factor (1 MHz)	150 / 1200	E-4	IEC 60250
Volume resistivity	>1E13 / >1E13	Ωm*m	IEC 60093
Surface resistivity	*/ >1E15	Ωm	IEC 60093
Comparative tracking index	500 / -	-	IEC 60112
OTHER PROPERTIES			
	dry / cond		
Water absorption	5 / *	%	Sim. to ISO 62
Humidity absorption	1.5 / *	%	Sim. to ISO 62
Density	1510 / -	kg/m ³	ISO 1183

DSM Product

Unlimited. DSM

