

DSM Engineering Plastics - Property Data

Akulon® K225-KWS

PA6-unfilled

Properties	Typical Data	Unit	Test Method
RHEOLOGICAL PROPERTIES		dry / cond	
Molding shrinkage (normal)	1 / *	%	ISO 294-4
MECHANICAL PROPERTIES		dry / cond	
Tensile modulus	3800 / 1400	MPa	ISO 527-1/-2
Yield stress	80 / 40	MPa	ISO 527-1/-2
Yield strain	3.5 / 22	%	ISO 527-1/-2
Nominal strain at break	8 / >50	%	ISO 527-1/-2
Charpy impact strength (+23°C)	60 / -	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	55 / -	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	6 / 10	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	5 / 5	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)	80 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	200 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.9 / *	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.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.38 / *	mm	IEC 60695-11-10
ELECTRICAL PROPERTIES		dry / cond	
Relative permittivity (100Hz)	3.3 / 8	-	IEC 60250
Relative permittivity (1 MHz)	3.2 / 3.6	-	IEC 60250
Dissipation factor (100 Hz)	90 / 1250	E-4	IEC 60250
Dissipation factor (1 MHz)	200 / 800	E-4	IEC 60250
Volume resistivity	1E13 / 1E11	Ohm*m	IEC 60093
Surface resistivity	* / 1E14	Ohm	IEC 60093
Electric strength	30 / 25	kV/mm	IEC 60243-1
Comparative tracking index	* / 600	-	IEC 60112
OTHER PROPERTIES		dry / cond	
Water absorption	9 / *	%	Sim. to ISO 62
Humidity absorption	2.5 / *	%	Sim. to ISO 62
Density	1180 / -	kg/m ³	ISO 1183

DSM Product

Unlimited. **DSM**

