

DSM Engineering Plastics - Property Data

Akulon® K223-HMS6

PA6-MiD30

30% Mineral Reinforced, Heat Stabilized, Flame Retardant

Properties	Typical Data	Unit	Test Method
RHEOLOGICAL PROPERTIES		dry / cond	
Molding shrinkage (parallel)	0.45 / *	%	ISO 294-4
Molding shrinkage (normal)	0.45 / *	%	ISO 294-4
MECHANICAL PROPERTIES		dry / cond	
Tensile modulus	8000 / 3500	MPa	ISO 527-1/-2
Stress at break	75 / 40	MPa	ISO 527-1/-2
Strain at break	2.5 / 4	%	ISO 527-1/-2
Charpy impact strength (+23°C)	40 / 60	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	40 / 40	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	5 / 5	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)	140 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	205 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.5 / *	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.	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	3 / *	mm	IEC 60695-11-10
Glow Wire Flammability Index GWFI	960 / -	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	1.5 / -	mm	IEC 60695-2-12
ELECTRICAL PROPERTIES		dry / cond	
Relative permittivity (100Hz)	3.6 / 10	-	IEC 60250
Relative permittivity (1 MHz)	3.2 / 3.7	-	IEC 60250
Dissipation factor (100 Hz)	85 / 3000	E-4	IEC 60250
Dissipation factor (1 MHz)	140 / 900	E-4	IEC 60250
Volume resistivity	1E12 / 1E10	Ohm*m	IEC 60093
Surface resistivity	*/ 1E13	Ohm	IEC 60093
Electric strength	30 / 25	kV/mm	IEC 60243-1
Comparative tracking index	300 / 300	-	IEC 60112
OTHER PROPERTIES		dry / cond	
Water absorption	6 / *	%	Sim. to ISO 62
Humidity absorption	1.6 / *	%	Sim. to ISO 62
Density	1560 / -	kg/m ³	ISO 1183

DSM Product

Unlimited. **DSM**

