

DSM Engineering Plastics - Property Data

Akulon® S223-HM8

PA66-MiD40

40% Mineral Reinforced, Heat Stabilized

Properties	Typical Data	Unit	Test Method
MECHANICAL PROPERTIES		dry / cond	
Tensile modulus	9000 / -	MPa	ISO 527-1/-2
Stress at break	90 / 60	MPa	ISO 527-1/-2
Strain at break	2.5 / 5.5	%	ISO 527-1/-2
Charpy impact strength (+23°C)	40 / 50	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	35 / 40	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	5 / 10	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	3 / 3	kJ/m ²	ISO 179/1eA
THERMAL PROPERTIES		dry / cond	
Melting temperature (10°C/min)	260 / *	°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)	245 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.4 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.4 / *	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)	3.8 / 10	-	IEC 60250
Relative permittivity (1 MHz)	3.5 / 4	-	IEC 60250
Dissipation factor (100 Hz)	100 / 3000	E-4	IEC 60250
Dissipation factor (1 MHz)	110 / 1000	E-4	IEC 60250
Volume resistivity	1E12 / 1E10	Ohm*m	IEC 60093
Surface resistivity	* / 1E13	Ohm	IEC 60093
Electric strength	35 / 30	kV/mm	IEC 60243-1
Comparative tracking index	600 / 600	-	IEC 60112
OTHER PROPERTIES		dry / cond	
Water absorption	5.3 / *	%	Sim. to ISO 62
Humidity absorption	1.4 / *	%	Sim. to ISO 62
Density	1480 / -	kg/m ³	ISO 1183

DSM Product

Unlimited. **DSM**

