

DSM Engineering Plastics - Property Data

Akulon® S223-F

PA66-unfilled

Low/Medium Viscosity

Properties	Typical Data	Unit	Test Method
MECHANICAL PROPERTIES		dry / cond	
Tensile modulus	3400 / 1500	MPa	ISO 527-1/-2
Yield stress	90 / 60	MPa	ISO 527-1/-2
Yield strain	3.5 / 20	%	ISO 527-1/-2
Nominal strain at break	40 / >50	%	ISO 527-1/-2
Charpy impact strength (+23°C)	N / N	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	N / N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	7 / 14	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	7 / 7	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)	75 / *	°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)	1 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	1 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.6 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
Burning Behav. at thickness h	V-2 / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10
ELECTRICAL PROPERTIES		dry / cond	
Relative permittivity (100Hz)	3.2 / 10	-	IEC 60250
Relative permittivity (1 MHz)	3 / 4	-	IEC 60250
Dissipation factor (100 Hz)	60 / 1400	E-4	IEC 60250
Dissipation factor (1 MHz)	170 / 1000	E-4	IEC 60250
Volume resistivity	1E13 / 1E10	Ohm*m	IEC 60093
Surface resistivity	* / 1E14	Ohm	IEC 60093
Electric strength	25 / 20	kV/mm	IEC 60243-1
Comparative tracking index	600 / 600	-	IEC 60112
OTHER PROPERTIES		dry / cond	
Water absorption	9 / *	%	Sim. to ISO 62
Humidity absorption	2.4 / *	%	Sim. to ISO 62
Density	1140 / -	kg/m ³	ISO 1183

DSM Product

Unlimited. **DSM**

