

DSM Engineering Plastics - Property Data

Akulon® F223-DH

PA6-unfilled

Low/Medium Viscosity, Heat Stabilized

Properties	Typical Data	Unit	Test Method
RHEOLOGICAL PROPERTIES		dry / cond	
Molding shrinkage (parallel)	0.95 / *	%	ISO 294-4
Molding shrinkage (normal)	0.95 / *	%	ISO 294-4
MECHANICAL PROPERTIES		dry / cond	
Tensile modulus	3500 / 1700	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	20 / >50	%	ISO 527-1/-2
Charpy impact strength (+23°C)	N / -	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	N / -	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	10 / -	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	6 / -	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)	65 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	185 / *	°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)	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
Oxygen index	26 / *	%	ISO 4589-1/-2
ELECTRICAL PROPERTIES		dry / cond	
Relative permittivity (100Hz)	3.2 / -	-	IEC 60250
Relative permittivity (1 MHz)	3 / -	-	IEC 60250
Dissipation factor (100 Hz)	50 / -	E-4	IEC 60250
Dissipation factor (1 MHz)	160 / -	E-4	IEC 60250
Volume resistivity	1E13 / -	Ohm*m	IEC 60093
Surface resistivity	* / 1E15	Ohm	IEC 60093
Comparative tracking index	600 / 600	-	IEC 60112
OTHER PROPERTIES		dry / cond	
Water absorption	10 / *	%	Sim. to ISO 62
Humidity absorption	2.8 / *	%	Sim. to ISO 62
Density	1130 / -	kg/m ³	ISO 1183
MATERIAL SPECIFIC PROPERTIES		dry / cond	
Viscosity number	142 / *	cm ³ /g	ISO 307, 1157, 1628

DSM Product

Unlimited. **DSM**

