

DSM Engineering Plastics - Property Data

Akulon® J-3/30

PA6-GF33

33% Glass Reinforced

Properties	Typical Data	Unit	Test Method
RHEOLOGICAL PROPERTIES			
	dry / cond		
Molding shrinkage (parallel)	0.4 / *	%	ISO 294-4
Molding shrinkage (normal)	0.9 / *	%	ISO 294-4
MECHANICAL PROPERTIES			
	dry / cond		
Tensile modulus	10000 / 6600	MPa	ISO 527-1/-2
Stress at break	180 / 110	MPa	ISO 527-1/-2
Strain at break	3.5 / 5	%	ISO 527-1/-2
Flexural modulus	9200 / -	MPa	ISO 178
Flexural strength	250 / -	MPa	ISO 178
Charpy impact strength (+23°C)	95 / 110	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	75 / 70	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	15 / 30	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	11 / 11	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)	210 / *	°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)	0.2 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.7 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 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)	3.5 / 20	-	IEC 60250
Relative permittivity (1 MHz)	3.3 / 5	-	IEC 60250
Dissipation factor (100 Hz)	50 / 3000	E-4	IEC 60250
Dissipation factor (1 MHz)	150 / 1200	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
OTHER PROPERTIES			
	dry / cond		
Water absorption	6.3 / *	%	Sim. to ISO 62
Humidity absorption	1.9 / *	%	Sim. to ISO 62
Density	1380 / *	kg/m ³	ISO 1183

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DSM Product

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