

Akulon® F-X9190

PA6

Low/Medium Viscosity

Properties	Typical Data	Unit	Test Method
Rheological properties			
	dry / cond		
Molding shrinkage (parallel)	1.1/*	%	ISO 294-4
Molding shrinkage (normal)	1.1/*	%	ISO 294-4
Mechanical properties			
	dry / cond		
Tensile modulus	3200/1000	MPa	ISO 527-1/-2
Yield stress	85/45	MPa	ISO 527-1/-2
Yield strain	4/25	%	ISO 527-1/-2
Nominal strain at break	20/>50	%	ISO 527-1/-2
Flexural modulus	2600/-	MPa	ISO 178
Flexural strength	100/-	MPa	ISO 178
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)	8/35	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)	60/*	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	150/*	°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 Beh. at 1.5 mm nom. thickn.	V-2/*	class	IEC 60695-11-10
Thickness tested	1.5/*	mm	IEC 60695-11-10
Burning Beh. at thickness h	V-2/*	class	IEC 60695-11-10
Thickness tested	0.75/*	mm	IEC 60695-11-10
Oxygen index	26/*	%	ISO 4589-1/-2
Glow Wire Flammability Index GWFI	960/-	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	2/-	mm	IEC 60695-2-12
Glow Wire Flammability Index GWFI	960/-	°C	IEC 60695-2-12
GWFI (Thickness (2) tested)	1.5/-	mm	IEC 60695-2-12

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Properties	Typical Data	Unit	Test Method
Glow Wire Ignition Temperature GWIT	725/-	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	2/-	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	875/-	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	1.5/-	mm	IEC 60695-2-13
Electrical properties	dry / cond		
Relative permittivity (100Hz)	3.4/15	-	IEC 60250
Relative permittivity (1 MHz)	3.1/4.7	-	IEC 60250
Dissipation factor (100 Hz)	65/3900	E-4	IEC 60250
Dissipation factor (1 MHz)	165/1300	E-4	IEC 60250
Volume resistivity	1E13/1E10	Ohm*m	IEC 60093
Surface resistivity	*/1E14	Ohm	IEC 60093
Electric strength	30/20	kV/mm	IEC 60243-1
Comparative tracking index	*/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	129/*	cm ³ /g	ISO 307, 1157, 1628

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