Property Data

Envalior
Imagine the Future

Akulon® Ultraflow K220-HGM44

PA6-(GF+MD)40

20% Glass Reinforced, 20% Mineral Reinforced, Heat Stabilized

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES	DRY / COND		
Molding shrinkage (parallel)	0.3 / *	%	ISO 294-4
Molding shrinkage (normal)	0.9 / *	%	ISO 294-4
MECHANICAL PROPERTIES	DRY / COND		
Tensile modulus	11000 / 6000	MPa	ISO 527-1/-2
Stress at break	135 / 70	MPa	ISO 527-1/-2
Strain at break	2 / 3.5	%	ISO 527-1/-2
Flexural modulus	9000 / -	MPa	ISO 178
Charpy impact strength (+23°C)	40 / 50	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	35 / 35	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	7 / 9	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	4.5 / 4.5	kJ/m²	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)	185 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	215 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.3 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.5 / *	E-4/°C	ISO 11359-1/-2
ELECTRICAL PROPERTIES	DRY / COND		
Relative permittivity (100Hz)	3.5 / 14	-	IEC 62631-2-1
Relative permittivity (1 MHz)	3.3 / 4.5	-	IEC 62631-2-1

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PROPERTIES	*TYPICAL DATA*	*UNIT*	*TEST METHOD*
Dissipation factor (100 Hz)	50 / 4000	E–4	IEC 62631–2–1
Dissipation factor (1 MHz)	130 / 1200	E–4	IEC 62631–2–1
Volume resistivity	1E12 / 1E10	Ohm*m	IEC 62631–3–1
Surface resistivity	– / 1E13	Ohm	IEC 62631–3–2
Electric strength	35 / 30	kV/mm	IEC 60243–1
Comparative tracking index	550 / 550	V	IEC 60112

OTHER PROPERTIES	*DRY / COND*		
Water absorption	5.5 / *	%	Sim. to ISO 62
Humidity absorption	1.6 / *	%	Sim. to ISO 62
Density	1470 / –	kg/m³	ISO 1183