

Arnitel[®] EL630-08

TPC-ET

Food Contact Quality, Injection Molding

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	VALUE		
Melt volume-flow rate	23	cm ³ /10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133
Molding shrinkage [parallel]	1.75	%	Sim. to ISO 294-4
Molding shrinkage [normal]	2	%	Sim. to ISO 294-4
MECHANICAL PROPERTIES			
	VALUE		
Shore D Hardness (3s)	58	—	ISO 868
Tensile modulus	310	MPa	ISO 527-1/-2
Stress at break	35	MPa	ISO 527-1/-2
Nominal strain at break	430	%	ISO 527-1/-2
Stress at 5% strain	12	MPa	ISO 527-1/-2
Stress at 10% strain	17	MPa	ISO 527-1/-2
Stress at 50% strain	18	MPa	ISO 527-1/-2
Stress at 100% strain	18	MPa	ISO 527-1/-2
Charpy notched impact strength (+23°C)	N	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	12	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	N	kJ/m ²	ISO 180/1A
Flexural modulus	340	MPa	ISO 178
Compression Set under constant strain at 70 °C	43	%	ISO 815

MECHANICAL PROPERTIES (DIE CUTTING)

VALUE

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Stress at break (normal)	45	MPa	ISO 527–1/–2
Tear strength (normal)	162	kN/m	ISO 34–1; Method B
Tear strength (parallel)	160	kN/m	ISO 34–1; Method B
Strain at break (normal)	740	%	ISO 527–1/–2
THERMAL PROPERTIES	VALUE		
Melting temperature (10°C/min)	210	°C	ISO 11357–1/–3
Temp. of deflection under load (0.45 MPa)	115	°C	ISO 75–1/–2
Vicat softening temperature (50°C/h 50N)	125	°C	ISO 306
Coeff. of linear therm. expansion (parallel)	1.85	E–4/°C	ISO 11359–1/–2
Coeff. of linear therm. expansion (normal)	1.85	E–4/°C	ISO 11359–1/–2
ELECTRICAL PROPERTIES	VALUE		
Relative permittivity (100Hz)	3.8	–	IEC 62631–2–1
Relative permittivity (1 MHz)	3.4	–	IEC 62631–2–1
Dissipation factor (100 Hz)	110	E–4	IEC 62631–2–1
Dissipation factor (1 MHz)	340	E–4	IEC 62631–2–1
Volume resistivity	1E12	Ohm*m	IEC 62631–3–1
Electric strength	22	kV/mm	IEC 60243–1
Comparative tracking index	600	V	IEC 60112
OTHER PROPERTIES	VALUE		
Density	1240	kg/m³	ISO 1183
Apparent density	770	kg/m³	ISO 60
Water absorption	0.6	%	Sim. to ISO 62
Humidity absorption	0.2	%	Sim. to ISO 62