

Arnitel[®] PL380

TPC-ET

Injection Molding, Food Contact Quality

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES	VALUE		
Melt volume-flow rate	31.5	cm ³ /10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133
Molding shrinkage [parallel]	1.55	%	Sim. to ISO 294-4
Molding shrinkage [normal]	1.75	%	Sim. to ISO 294-4
MECHANICAL PROPERTIES	VALUE		
Shore D Hardness (3s)	32	—	ISO 868
Tensile modulus	44	MPa	ISO 527-1/-2
Stress at break	16	MPa	ISO 527-1/-2
Nominal strain at break	525	%	ISO 527-1/-2
Stress at 5% strain	2.2	MPa	ISO 527-1/-2
Stress at 10% strain	4	MPa	ISO 527-1/-2
Stress at 50% strain	7	MPa	ISO 527-1/-2
Stress at 100% strain	8	MPa	ISO 527-1/-2
Charpy notched impact strength (+23°C)	N	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	N	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	N	kJ/m ²	ISO 180/1A
Izod notched impact strength (-20°C)	N	kJ/m ²	ISO 180/1A
Izod notched impact strength (-30°C)	N	kJ/m ²	ISO 180/1A
Flexural modulus	50	MPa	ISO 178

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MECHANICAL PROPERTIES (DIE CUTTING)	VALUE		
Stress at break (normal)	20	MPa	ISO 527-1/-2
Tear strength (normal)	97	kN/m	ISO 34-1; Method B
Tear strength (parallel)	93	kN/m	ISO 34-1; Method B
Strain at break (normal)	880	%	ISO 527-1/-2
THERMAL PROPERTIES	VALUE		
Melting temperature (10°C/min)	212	°C	ISO 11357-1/-3
Coeff. of linear therm. expansion (parallel)	1.5	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	1.5	E-4/°C	ISO 11359-1/-2
ELECTRICAL PROPERTIES	VALUE		
Relative permittivity (100Hz)	4.7	—	IEC 62631-2-1
Relative permittivity (1 MHz)	4.4	—	IEC 62631-2-1
Dissipation factor (100 Hz)	310	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	810	E-4	IEC 62631-2-1
Volume resistivity	1E12	Ohm*m	IEC 62631-3-1
Electric strength	20	kV/mm	IEC 60243-1
Comparative tracking index	600	V	IEC 60112
OTHER PROPERTIES	VALUE		
Density	1160	kg/m³	ISO 1183
Water absorption	7	%	Sim. to ISO 62
Humidity absorption	0.4	%	Sim. to ISO 62