

Arnitel[®] PL581

TPC-ET

Injection Molding

Print Date: 2025-10-04

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES		VALUE	
Melt volume-flow rate	15	cm ³ /10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133
Molding shrinkage [parallel]	1.7	%	Sim. to ISO 294-4
Molding shrinkage [normal]	1.8	%	Sim. to ISO 294-4
MECHANICAL PROPERTIES		VALUE	
Shore D Hardness (3s)	53	—	ISO 868
Tensile modulus	210	MPa	ISO 527-1/-2
Yield stress	17	MPa	ISO 527-1/-2
Yield strain	35	%	ISO 527-1/-2
Stress at break	31	MPa	ISO 527-1/-2
Nominal strain at break	400	%	ISO 527-1/-2
Stress at 5% strain	9.2	MPa	ISO 527-1/-2
Stress at 10% strain	13.2	MPa	ISO 527-1/-2
Stress at 50% strain	16.5	MPa	ISO 527-1/-2
Stress at 100% strain	17	MPa	ISO 527-1/-2
Charpy notched impact strength (+23°C)	N	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	16	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	N	kJ/m ²	ISO 180/1A
Izod notched impact strength (-30°C)	15	kJ/m ²	ISO 180/1A
Tear strength	125	kN/m	ISO 34-1; Method B

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THERMAL PROPERTIES		VALUE	
Melting temperature (10°C/min)	218	°C	ISO 11357-1/-3
Temp. of deflection under load (0.45 MPa)	100	°C	ISO 75-1/-2
Vicat softening temperature (50°C/h 50N)	105	°C	ISO 306
Coeff. of linear therm. expansion (parallel)	1.1	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	1.1	E-4/°C	ISO 11359-1/-2
ELECTRICAL PROPERTIES		VALUE	
Relative permittivity (1 MHz)	4	—	IEC 62631-2-1
Dissipation factor (1 MHz)	400	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Electric strength	21	kV/mm	IEC 60243-1
Comparative tracking index	600	V	IEC 60112
OTHER PROPERTIES		VALUE	
Density	1240	kg/m³	ISO 1183
Water absorption	2.5	%	Sim. to ISO 62
Humidity absorption	0.4	%	Sim. to ISO 62

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