

# Arnitel<sup>®</sup> PL381-H

## TPC-ET

Injection Molding, Heat Stabilized

Print Date: 2025-10-04

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
<b>RHEOLOGICAL PROPERTIES</b>			
	VALUE		
Melt volume-flow rate	32	cm <sup>3</sup> /10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133
Molding shrinkage (parallel)	1.55	%	ISO 294-4
Molding shrinkage (normal)	1.75	%	ISO 294-4
<b>MECHANICAL PROPERTIES</b>			
	VALUE		
Shore D Hardness (3s)	32	—	ISO 868
Tensile modulus	45	MPa	ISO 527-1/-2
Stress at break	14	MPa	ISO 527-1/-2
Nominal strain at break	450	%	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 <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (-30°C)	N	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength (+23°C)	N	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength (-20°C)	N	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength (-30°C)	N	kJ/m <sup>2</sup>	ISO 180/1A
Flexural modulus	45	MPa	ISO 178

### MECHANICAL PROPERTIES (DIE CUTTING) VALUE

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## Property Data

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Print Date: 2025–10–04

<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
Stress at break (normal)	18	MPa	ISO 527–1/–2
Tear strength (normal)	95	kN/m	ISO 34–1; Method B
Tear strength (parallel)	93	kN/m	ISO 34–1; Method B
Strain at break (normal)	810	%	ISO 527–1/–2
<b><i>THERMAL PROPERTIES</i></b>			
	<b><i>VALUE</i></b>		
Melting temperature (10°C/min)	212	°C	ISO 11357–1/–3
Vicat softening temperature (50°C/h 10N)	124	°C	ISO 306
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
<b><i>ELECTRICAL PROPERTIES</i></b>			
	<b><i>VALUE</i></b>		
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
<b><i>OTHER PROPERTIES</i></b>			
	<b><i>VALUE</i></b>		
Density	1160	kg/m <sup>3</sup>	ISO 1183
Water absorption	7	%	Sim. to ISO 62
Humidity absorption	0.4	%	Sim. to ISO 62

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