

# Arnite<sup>®</sup> Care T1U

## PBT

Unreinforced, Medium Viscosity, Injection Molding, Medical grade

<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
<b>RHEOLOGICAL PROPERTIES</b>			
	<b>VALUE</b>		
Melt volume–flow rate	24	cm <sup>3</sup> /10min	ISO 1133
Temperature	250	°C	ISO 1133
Load	2.16	kg	ISO 1133
Molding shrinkage [normal]	2	%	Sim. to ISO 294–4
Molding shrinkage [parallel]	2	%	Sim. to ISO 294–4
<b>MECHANICAL PROPERTIES</b>			
	<b>VALUE</b>		
Tensile modulus	2700	MPa	ISO 527–1/–2
Yield stress	55	MPa	ISO 527–1/–2
Yield strain	3.5	%	ISO 527–1/–2
Nominal strain at break	20	%	ISO 527–1/–2
Charpy impact strength (+23°C)	N	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength (–30°C)	N	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	5	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (–30°C)	5	kJ/m <sup>2</sup>	ISO 179/1eA
<b>THERMAL PROPERTIES</b>			
	<b>VALUE</b>		
Melting temperature (10°C/min)	225	°C	ISO 11357–1/–3
Temp. of deflection under load (1.80 MPa)	55	°C	ISO 75–1/–2
Temp. of deflection under load (0.45 MPa)	165	°C	ISO 75–1/–2
Coeff. of linear therm. expansion (parallel)	0.9	E–4/°C	ISO 11359–1/–2
Coeff. of linear therm. expansion (normal)	0.9	E–4/°C	ISO 11359–1/–2

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
<b><i>ELECTRICAL PROPERTIES</i></b>			
	<b><i>VALUE</i></b>		
Relative permittivity (100Hz)	3.5	–	IEC 62631–2–1
Relative permittivity (1 MHz)	3.2	–	IEC 62631–2–1
Dissipation factor (100 Hz)	20	E–4	IEC 62631–2–1
Dissipation factor (1 MHz)	200	E–4	IEC 62631–2–1
Volume resistivity	>1E13	Ohm*m	IEC 62631–3–1
Electric strength	27	kV/mm	IEC 60243–1
Comparative tracking index	600	V	IEC 60112
Comparative tracking index (PLC)	0	class	UL 746A
<b><i>OTHER PROPERTIES</i></b>			
	<b><i>VALUE</i></b>		
Water absorption	0.45	%	Sim. to ISO 62
Humidity absorption	0.18	%	Sim. to ISO 62
Density	1320	kg/m <sup>3</sup>	ISO 1183

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Viscosity–shear rate

