

# Arnitel<sup>®</sup> EM400

## TPC-ET

Injection Molding, Film Extrusion, Food Contact Quality

Print Date: 2024-07-03

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
<b>RHEOLOGICAL PROPERTIES</b>			
	<b>VALUE</b>		
Melt volume-flow rate	33	cm <sup>3</sup> /10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133
Molding shrinkage [parallel]	1.5	%	Sim. to ISO 294-4
Molding shrinkage [normal]	1.5	%	Sim. to ISO 294-4

<b>MECHANICAL PROPERTIES</b>			
	<b>VALUE</b>		
Shore D Hardness (3s)	33	—	ISO 868
Tensile modulus	40	MPa	ISO 527-1/-2
Stress at break	20	MPa	ISO 527-1/-2
Nominal strain at break	830	%	ISO 527-1/-2
Stress at 5% strain	2.3	MPa	ISO 527-1/-2
Stress at 10% strain	3.8	MPa	ISO 527-1/-2
Stress at 50% strain	6.8	MPa	ISO 527-1/-2
Stress at 100% strain	7.5	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
Flexural modulus	50	MPa	ISO 178

### MECHANICAL PROPERTIES (DIE CUTTING) VALUE

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## Property Data

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
Stress at break (normal)	19	MPa	ISO 527-1/-2
Tear strength (normal)	104	kN/m	ISO 34-1; Method B
Tear strength (parallel)	106	kN/m	ISO 34-1; Method B
Strain at break (normal)	960	%	ISO 527-1/-2
<b><i>THERMAL PROPERTIES</i></b>		<b><i>VALUE</i></b>	
Melting temperature (10°C/min)	195	°C	ISO 11357-1/-3
Coeff. of linear therm. expansion (parallel)	2.2	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	2.2	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	IEC 60695-11-10
<b><i>ELECTRICAL PROPERTIES</i></b>		<b><i>VALUE</i></b>	
Relative permittivity (100Hz)	4.1	–	IEC 62631-2-1
Relative permittivity (1 MHz)	4	–	IEC 62631-2-1
Dissipation factor (100 Hz)	10	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	170	E-4	IEC 62631-2-1
Volume resistivity	1E13	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	1110	kg/m <sup>3</sup>	ISO 1183
Apparent density	690	kg/m <sup>3</sup>	ISO 60
Water absorption	0.75	%	Sim. to ISO 62
Humidity absorption	0.3	%	Sim. to ISO 62

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