

# Arnitel<sup>®</sup> EM460

## TPC-ET

Injection Molding, Film Extrusion, Food Contact Quality

Print Date: 2024-04-10

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
<b>RHEOLOGICAL PROPERTIES</b>			
	<b>VALUE</b>		
Melt volume-flow rate	46	cm <sup>3</sup> /10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133
Molding shrinkage [parallel]	1.25	%	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)	40	—	ISO 868
Tensile modulus	90	MPa	ISO 527-1/-2
Stress at break	23	MPa	ISO 527-1/-2
Nominal strain at break	900	%	ISO 527-1/-2
Stress at 5% strain	4.5	MPa	ISO 527-1/-2
Stress at 10% strain	7	MPa	ISO 527-1/-2
Stress at 50% strain	9.7	MPa	ISO 527-1/-2
Stress at 100% strain	9.2	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	98	MPa	ISO 178
Compression Set under constant strain at 70 °C	50	%	ISO 815

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## Property Data

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
<b>MECHANICAL PROPERTIES (DIE CUTTING)</b>			
Stress at break (normal)	20	MPa	ISO 527-1/-2
Tear strength (normal)	122	kN/m	ISO 34-1; Method B
Tear strength (parallel)	119	kN/m	ISO 34-1; Method B
Strain at break (normal)	860	%	ISO 527-1/-2
<b>THERMAL PROPERTIES</b>			
Melting temperature (10°C/min)	189	°C	ISO 11357-1/-3
Vicat softening temperature (50°C/h 50N)	50	°C	ISO 306
Coeff. of linear therm. expansion (parallel)	1.6	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	1.6	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>ELECTRICAL PROPERTIES</b>			
Relative permittivity (1 MHz)	4.4	—	IEC 62631-2-1
Dissipation factor (1 MHz)	350	E-4	IEC 62631-2-1
Volume resistivity	1E11	Ohm*m	IEC 62631-3-1
Electric strength	20	kV/mm	IEC 60243-1
Comparative tracking index	600	V	IEC 60112
<b>OTHER PROPERTIES</b>			
Density	1150	kg/m <sup>3</sup>	ISO 1183
Water absorption	0.7	%	Sim. to ISO 62
Humidity absorption	0.3	%	Sim. to ISO 62

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