

Arnitel® EM460-08

TPC-ET

Injection Molding or Extrusion Grade, Food Contact Quality

Properties	Typical Data	Unit	Test Method
Rheological properties			
	Value		
Melt volume-flow rate	46	cm ³ /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
Mechanical properties			
	Value		
Shore D Hardness (3s)	43	-	ISO 868
Tensile modulus	85	MPa	ISO 527-1/-2
Stress at break	23	MPa	ISO 527-1/-2
Nominal strain at break	700	%	ISO 527-1/-2
Stress at 5% strain	3.9	MPa	ISO 527-1/-2
Stress at 10% strain	6.6	MPa	ISO 527-1/-2
Stress at 50% strain	9.2	MPa	ISO 527-1/-2
Stress at 100% strain	9.3	MPa	ISO 527-1/-2
Charpy notched impact strength (+23°C)	N	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	N	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	N	kJ/m ²	ISO 180/1A
Izod notched impact strength (-20°C)	N	kJ/m ²	ISO 180/1A
Flexural modulus	95	MPa	ISO 178
Compression Set under constant strain at 70 °C	50	%	ISO 815

Mechanical properties (die cutting)

Value



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Properties	Typical Data	Unit	Test Method
Stress at break (normal)	20	MPa	ISO 527-1/-2
Tear strength (normal)	119	kN/m	ISO 34-1; Method B
Tear strength (parallel)	120	kN/m	ISO 34-1; Method B
Strain at break (normal)	850	%	ISO 527-1/-2

Thermal properties

Value

Melting temperature (10°C/min)	189	°C	ISO 11357-1/-3
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

Electrical properties

Value

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

Other properties

Value

Density	1150	kg/m ³	ISO 1183
Water absorption	0.7	%	Sim. to ISO 62
Humidity absorption	0.3	%	Sim. to ISO 62

