

# Arnitel<sup>®</sup> EL550

## TPC-ET

Injection Molding, Food Contact Quality, Film Extrusion

Print Date: 2024-04-10

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES		VALUE	
Melt volume-flow rate	36	cm <sup>3</sup> /10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133
Molding shrinkage [parallel]	1.55	%	Sim. to ISO 294-4
Molding shrinkage [normal]	1.55	%	Sim. to ISO 294-4
MECHANICAL PROPERTIES		VALUE	
Shore D Hardness (3s)	53	—	ISO 868
Tensile modulus	200	MPa	ISO 527-1/-2
Stress at break	35	MPa	ISO 527-1/-2
Nominal strain at break	690	%	ISO 527-1/-2
Stress at 5% strain	7.4	MPa	ISO 527-1/-2
Stress at 10% strain	11.1	MPa	ISO 527-1/-2
Stress at 50% strain	13.8	MPa	ISO 527-1/-2
Stress at 100% strain	13.7	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)	25	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	210	MPa	ISO 178
Compression Set under constant strain at 70 °C	40	%	ISO 815

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MECHANICAL PROPERTIES (DIE CUTTING)	VALUE		
Stress at break (normal)	33	MPa	ISO 527-1/-2
Tear strength (normal)	137	kN/m	ISO 34-1; Method B
Tear strength (parallel)	138	kN/m	ISO 34-1; Method B
Strain at break (normal)	810	%	ISO 527-1/-2
THERMAL PROPERTIES	VALUE		
Melting temperature (10°C/min)	207	°C	ISO 11357-1/-3
Temp. of deflection under load (0.45 MPa)	110	°C	ISO 75-1/-2
Vicat softening temperature (50°C/h 50N)	90	°C	ISO 306
Coeff. of linear therm. expansion (parallel)	2	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	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
ELECTRICAL PROPERTIES	VALUE		
Relative permittivity (100Hz)	4.4	—	IEC 62631-2-1
Relative permittivity (1 MHz)	4	—	IEC 62631-2-1
Dissipation factor (1 MHz)	400	E-4	IEC 62631-2-1
Volume resistivity	1E11	Ohm*m	IEC 62631-3-1
Electric strength	21	kV/mm	IEC 60243-1
Comparative tracking index	600	V	IEC 60112
OTHER PROPERTIES	VALUE		
Density	1200	kg/m³	ISO 1183
Water absorption	0.65	%	Sim. to ISO 62
Humidity absorption	0.2	%	Sim. to ISO 62

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