

Arnitel® PM581

TPC-ET

Extrusion Grade

Properties	Typical Data	Unit	Test Method
Rheological properties			
	Value		
Melt volume-flow rate	4	cm ³ /10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133
Mechanical properties			
	Value		
Shore D Hardness (3s)	53	-	ISO 868
Tensile modulus	250	MPa	ISO 527-1/-2
Stress at break	26	MPa	ISO 527-1/-2
Nominal strain at break	220	%	ISO 527-1/-2
Stress at 5% strain	9.5	MPa	ISO 527-1/-2
Stress at 10% strain	14	MPa	ISO 527-1/-2
Stress at 50% strain	18	MPa	ISO 527-1/-2
Stress at 100% strain	20	MPa	ISO 527-1/-2
Charpy notched impact strength (+23°C)	N	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	16	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	N	kJ/m ²	ISO 180/1A
Izod notched impact strength (-30°C)	25	kJ/m ²	ISO 180/1A
Flexural modulus	240	MPa	ISO 178
Mechanical properties (die cutting)			
	Value		
Stress at break (normal)	43	MPa	ISO 527-1/-2
Tear strength (normal)	141	kN/m	ISO 34-1; Method B
Tear strength (parallel)	149	kN/m	ISO 34-1; Method B



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Strain at break (normal)	710	%	ISO 527-1/-2

Thermal properties

Value

Melting temperature (10°C/min)	218	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	100	°C	ISO 75-1/-2
Vicat softening temperature (50°C/h 50N)	80	°C	ISO 306
Vicat softening temperature (50°C/h 10N)	204	°C	ISO 306
Coeff. of linear therm. expansion (parallel)	1.1	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	1.1	E-4/°C	ISO 11359-1/-2

Electrical properties

Value

Relative permittivity (100Hz)	4.7	-	IEC 62631-2-1
Relative permittivity (1 MHz)	4.4	-	IEC 62631-2-1
Dissipation factor (100 Hz)	310	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	810	E-4	IEC 62631-2-1
Volume resistivity	>1E13	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	1240	kg/m ³	ISO 1183
Water absorption	2.5	%	Sim. to ISO 62
Humidity absorption	0.4	%	Sim. to ISO 62

