

DSM Engineering Plastics - Property Data

Arnitel® PM381

TPE-unfilled

33 Shore D, Extrusion Grade

Properties	Typical Data	Unit	Test Method
RHEOLOGICAL PROPERTIES			
Melt volume-flow rate	4	cm ³ /10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133
MECHANICAL PROPERTIES			
Shore D Hardness (3s)	33	-	ISO 868
Tensile modulus	60	MPa	ISO 527-1/-2
Stress at break	13.1	MPa	ISO 527-1/-2
Nominal strain at break	175	%	ISO 527-1/-2
Stress at 5% strain	2.6	MPa	ISO 527-1/-2
Stress at 10% strain	4.4	MPa	ISO 527-1/-2
Stress at 50% strain	8.8	MPa	ISO 527-1/-2
Stress at 100% strain	10.9	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 (-30°C)	N	kJ/m ²	ISO 180/1A
THERMAL PROPERTIES			
Melting temperature (10°C/min)	212	°C	ISO 11357-1/-3
Vicat softening temperature (50°C/h 10N)	145	°C	ISO 306
Coeff. of linear therm. expansion (parallel)	1.5	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	1.5	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.6 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.6	mm	IEC 60695-11-10
ELECTRICAL PROPERTIES			
Relative permittivity (100Hz)	4.7	-	IEC 60250
Relative permittivity (1 MHz)	4.4	-	IEC 60250
Dissipation factor (100 Hz)	310	E-4	IEC 60250
Dissipation factor (1 MHz)	810	E-4	IEC 60250
Volume resistivity	1E12	Ohm*m	IEC 60093
Surface resistivity	1E13	Ohm	IEC 60093
Electric strength	20	kV/mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112
OTHER PROPERTIES			
Density	1160	kg/m ³	ISO 1183
Water absorption	7	%	Sim. to ISO 62
Humidity absorption	0.4	%	Sim. to ISO 62

