

# DSM Engineering Plastics - Property Data

## Arnitel® PM581

TPE-unfilled

55 Shore D, Extrusion Grade

Properties	Typical Data	Unit	Test Method
<b>RHEOLOGICAL PROPERTIES</b>			
Melt volume-flow rate	3.5	cm <sup>3</sup> /10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133
<b>MECHANICAL PROPERTIES</b>			
Shore D Hardness (3s)	55	-	ISO 868
Tensile modulus	300	MPa	ISO 527-1/-2
Stress at break	24.5	MPa	ISO 527-1/-2
Nominal strain at break	200	%	ISO 527-1/-2
Stress at 5% strain	9.3	MPa	ISO 527-1/-2
Stress at 10% strain	13.1	MPa	ISO 527-1/-2
Stress at 50% strain	17	MPa	ISO 527-1/-2
Stress at 100% strain	17.9	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)	16	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 (-30°C)	25	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL PROPERTIES</b>			
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)	105	°C	ISO 306
Vicat softening temperature (50°C/h 10N)	205	°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
Burning Behav. at 1.6 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.6	mm	IEC 60695-11-10
<b>ELECTRICAL PROPERTIES</b>			
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	>1E13	Ohm*m	IEC 60093
Surface resistivity	1E13	Ohm	IEC 60093
Electric strength	21	kV/mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112
<b>OTHER PROPERTIES</b>			
Density	1230	kg/m <sup>3</sup>	ISO 1183
Water absorption	2.5	%	Sim. to ISO 62

01.04.2004

DSM Product

Unlimited. DSM

All information supplied by or on behalf of DSM in relation to its products, whether in the nature of data, recommendations or otherwise, is supported by research and, in good faith, believed reliable, but DSM assumes no liability and makes no warranties of any kind, express or implied, including, but not limited to, those of title, merchantability, fitness for a particular purpose or non-infringement or any warranty arising from a course of dealing, usage, or trade practice whatsoever in respect of application, processing or use made of the aforementioned information or product. The user assumes all responsibility for the use of all information provided and shall verify quality and other properties or any consequence from the use of all such information.

# DSM Engineering Plastics - Property Data

## Arnitel<sup>®</sup> PM581

TPE-unfilled

---

Humidity absorption	0.4	%	Sim. to ISO 62
---------------------	-----	---	----------------

---

01.04.2004

 DSM Product

*Unlimited.* **DSM**

All information supplied by or on behalf of DSM in relation to its products, whether in the nature of data, recommendations or otherwise, is supported by research and, in good faith, believed reliable, but DSM assumes no liability and makes no warranties of any kind, express or implied, including, but not limited to, those of title, merchantability, fitness for a particular purpose or non-infringement or any warranty arising from a course of dealing, usage, or trade practice whatsoever in respect of application, processing or use made of the aforementioned information or product. The user assumes all responsibility for the use of all information provided and shall verify quality and other properties or any consequence from the use of all such information.