


**Arnitel® UM551 - Shore 55 D**

TPC

DSM Engineering Plastics

**Product Texts**

ISO 18064 TPC-ES

[Arnitel website](#)

Rheological properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	13.8	cm³/10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133
<b>Mechanical properties</b>			
<b>ISO Data</b>			
Tensile Modulus	200	MPa	ISO 527-1/-2
Yield stress	15	MPa	ISO 527-1/-2
Yield strain	22	%	ISO 527-1/-2
Nominal strain at break	>50	%	ISO 527-1/-2
Charpy impact strength, -30°C	6	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	N	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	6	kJ/m²	ISO 179/1eA
Stress at 10% elongation	13.4	MPa	ISO 527-1/-2
Stress at 100% elongation	24	MPa	ISO 527-1/-2
Stress at 300% elongation	28	MPa	ISO 527-1/-2
Strain at break TPE	>300	%	ISO 527-1/-2
Tear strength	165	kN/m	ISO 34-1
Shore D hardness, 15s	55	-	ISO 868
<b>Thermal properties</b>			
<b>ISO Data</b>			
Melting temperature (10°C/min)	200	°C	ISO 11357-1/-3
Temp. of deflection under load (0.45 MPa)	80	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	85	°C	ISO 306
Coeff. of linear therm. expansion, parallel	160	E-6/K	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
UL recognition	UL	-	-
Burning behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.8	mm	IEC 60695-11-10
UL recognition	UL	-	-
<b>Electrical properties</b>			
<b>ISO Data</b>			
Comparative tracking index	600	-	IEC 60112
<b>Other properties</b>			
<b>ISO Data</b>			
Water absorption	0.6	%	Sim. to ISO 62
Humidity absorption	0.25	%	Sim. to ISO 62
Density	1260	kg/m³	ISO 1183

**Characteristics**

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### Processing

Injection Molding, Film Extrusion

### Special Characteristics

Light stabilized or stable to light, U.V. stabilized or stable to weather, Heat stabilized or stable to heat

### Delivery form

Pellets

### Other text information

### Injection Molding

[Injection Molding Recommendations](#)