


Arnitel® UM551-V - Shore 55 D

TPC FR

DSM Engineering Plastics

Product Texts

Flame Retardant (halogen- phosphorous-free)

ISO 18064 TPC-ES FR

[Arnitel website](#)
Rheological properties

	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	15	cm³/10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133

Mechanical properties

	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	250	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 notched impact strength (+23°C)	N	kJ/m²	ISO 179/1eA
Stress at 10% elongation	13	MPa	ISO 527-1/-2
Stress at 100% elongation	17.5	MPa	ISO 527-1/-2
Stress at break TPE	27	MPa	ISO 527-1/-2
Shore D hardness, 15s	55	-	ISO 868

Thermal properties

	Value	Unit	Test Standard
ISO Data			
Melting temperature (10°C/min)	200	°C	ISO 11357-1/-3
Temp. of deflection under load (0.45 MPa)	85	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	90	°C	ISO 306

Electrical properties

	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	5.2	-	IEC 60250
Dissipation factor, 100Hz	0.02	E-4	IEC 60250
Volume resistivity	>1E13	Ohm*m	IEC 60093
Electric strength	20	kV/mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112

Other properties

	Value	Unit	Test Standard
ISO Data			
Water absorption	0.6	%	Sim. to ISO 62
Humidity absorption	0.25	%	Sim. to ISO 62
Density	1280	kg/m³	ISO 1183

Characteristics
Processing

Injection Molding, Other Extrusion

Delivery form

Pellets

Special Characteristics

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

Other text information
Injection Molding

[Injection Molding Recommendations](#)