

Arnitel® UM551-V

TPC-ES FR

Flame Retardant (halogen- phosphorous-free)

Due to limited hydrolysis resistance, this material should only be used in dry environments.

Properties	Typical Data	Unit	Test Method
Rheological properties			
Melt volume-flow rate	15	cm ³ /10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133
Melt flow index MFI	14.4	g/10min	ISO 1133
MFI test load	2.16	kg	ISO 1133
MFI test temperature	230	°C	ISO 1133
Molding shrinkage [parallel]	1.35	%	Sim. to ISO 294-4
Molding shrinkage [normal]	1.35	%	Sim. to ISO 294-4
Mechanical properties			
Shore D Hardness (3s)	55	-	ISO 868
Shore D Hardness (15s)	55	-	ISO 868
Tensile modulus	250	MPa	ISO 527-1/-2
Yield stress	15	MPa	ISO 527-1/-2
Yield strain	22	%	ISO 527-1/-2
Stress at break	27	MPa	ISO 527-1/-2
Nominal strain at break	375	%	ISO 527-1/-2
Stress at 10% strain	13	MPa	ISO 527-1/-2
Stress at 100% strain	17.5	MPa	ISO 527-1/-2
Charpy notched impact strength (+23°C)	N	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	N	kJ/m ²	ISO 180/1A



Property Data

Arnitel[®] UM551-V

Properties	Typical Data	Unit	Test Method
Thermal properties			
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
Burning Behav. at 1.5 mm nom. thickn.	V-2	class	IEC 60695-11-10
Thickness tested	1.5	mm	IEC 60695-11-10
Electrical properties			
Relative permittivity (100Hz)	5.2	-	IEC 62631-2-1
Dissipation factor (100 Hz)	0.02	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Electric strength	20	kV/mm	IEC 60243-1
Comparative tracking index	600	V	IEC 60112
Other properties			
Density	1280	kg/m ³	ISO 1183
Water absorption	0.6	%	Sim. to ISO 62
Humidity absorption	0.25	%	Sim. to ISO 62

