

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		VALUE	
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		VALUE	
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



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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
THERMAL PROPERTIES		VALUE	
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		VALUE	
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		VALUE	
Density	1280	kg/m³	ISO 1183
Water absorption	0.6	%	Sim. to ISO 62
Humidity absorption	0.25	%	Sim. to ISO 62

