

Arnitel[®] UM551

TPC-ES

Print Date: 2025-10-04

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	13.8	cm ³ /10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133
Melt flow index MFI	14	g/10min	ISO 1133
MFI test load	2.16	kg	ISO 1133
MFI test temperature	230	°C	ISO 1133
Molding shrinkage (parallel)	1.45	%	ISO 294-4
Molding shrinkage (normal)	1.35	%	ISO 294-4
MECHANICAL PROPERTIES	VALUE		
Shore D Hardness (3s)	55	—	ISO 868
Shore D Hardness (15s)	55	—	ISO 868
Tensile modulus	158	MPa	ISO 527-1/-2
Yield stress	15	MPa	ISO 527-1/-2
Yield strain	22	%	ISO 527-1/-2
Stress at break	36	MPa	ISO 527-1/-2
Nominal strain at break	656	%	ISO 527-1/-2
Stress at 10% strain	10.8	MPa	ISO 527-1/-2
Stress at 50% strain	14.3	MPa	ISO 527-1/-2
Stress at 100% strain	14.1	MPa	ISO 527-1/-2
Charpy notched impact strength (+23°C)	N	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	6	kJ/m ²	ISO 179/1eA

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Tear strength	165	kN/m	ISO 34-1; Method B

THERMAL PROPERTIES	VALUE		
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)	1.6	E-4/°C	ISO 11359-1/-2
Burning Behav. at 0.75 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	0.75	mm	IEC 60695-11-10
Burning Behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	IEC 60695-11-10
Burning Behav. at 3.0 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	3	mm	IEC 60695-11-10

ELECTRICAL PROPERTIES	VALUE		
Comparative tracking index	600	V	IEC 60112

OTHER PROPERTIES	VALUE		
Density	1260	kg/m³	ISO 1183
Water absorption	0.6	%	Sim. to ISO 62
Humidity absorption	0.25	%	Sim. to ISO 62

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