

Arnitel® CM550-S

TPC-ES FR

57 Shore D, Extrusion, Flame Retardant

Properties	Typical Data	Unit	Test Method
Rheological properties			
	Value		
Melt volume-flow rate	17	cm ³ /10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133
Mechanical properties			
	Value		
Shore D Hardness (3s)	57	-	ISO 868
Shore D Hardness (15s)	57	-	ISO 868
Shore A Hardness (3s)	98	-	ISO 868
Shore A Hardness (15s)	97	-	ISO 868
Tensile modulus	200	MPa	ISO 527-1/-2
Stress at break	28	MPa	ISO 527-1/-2
Nominal strain at break	400	%	ISO 527-1/-2
Stress at 5% strain	10	MPa	ISO 527-1/-2
Stress at 10% strain	14	MPa	ISO 527-1/-2
Stress at 50% strain	18	MPa	ISO 527-1/-2
Stress at 100% strain	17	MPa	ISO 527-1/-2
Charpy notched impact strength (+23°C)	N	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	5	kJ/m ²	ISO 179/1eA
Izod notched impact strength (-20°C)	N	kJ/m ²	ISO 180/1A
Izod notched impact strength (-30°C)	5.4	kJ/m ²	ISO 180/1A
Compression Set under constant strain at 70 °C	52	%	ISO 815

Mechanical properties (die cutting)

Value



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Properties	Typical Data	Unit	Test Method
Stress at break (normal)	31	MPa	ISO 527-1/-2
Stress at 5% strain (normal)	9.6	MPa	ISO 527-1/-2
Stress at 10% strain (normal)	13	MPa	ISO 527-1/-2
Stress at 50% strain (normal)	16	MPa	ISO 527-1/-2
Stress at 100% strain (normal)	15	MPa	ISO 527-1/-2
Tear strength (normal)	145	kN/m	ISO 34-1; Method B
Tear strength (parallel)	160	kN/m	ISO 34-1; Method B
Strain at break (normal)	590	%	ISO 527-1/-2

Thermal properties

Value

Melting temperature (10°C/min)	205	°C	ISO 11357-1/-3
Vicat softening temperature (50°C/h 50N)	71	°C	ISO 306

Electrical properties

Value

Relative permittivity (100Hz)	4.2	-	IEC 62631-2-1
Relative permittivity (1 MHz)	3.5	-	IEC 62631-2-1
Dissipation factor (100 Hz)	180	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	495	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1

Other properties

Value

Density	1310	kg/m ³	ISO 1183
Humidity absorption	0.11	%	Sim. to ISO 62

