

DSM Engineering Plastics - Property Data

Arnitel® EL550

TPE-unfilled

55 Shore D, Injection Grade

Properties	Typical Data	Unit	Test Method
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RHEOLOGICAL PROPERTIES

Melt volume-flow rate	31	cm ³ /10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133

MECHANICAL PROPERTIES

Shore D Hardness (3s)	53	-	ISO 868
Tensile modulus	200	MPa	ISO 527-1/-2
Stress at break	30	MPa	ISO 527-1/-2
Stress at 5% strain	8.8	MPa	ISO 527-1/-2
Stress at 10% strain	11.8	MPa	ISO 527-1/-2
Stress at 50% strain	13.8	MPa	ISO 527-1/-2
Stress at 100% strain	12	MPa	ISO 527-1/-2
Charpy notched impact strength (+23°C)	N	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	25	kJ/m ²	ISO 179/1eA
Izod notched impact strength (23°C)	N	kJ/m ²	ISO 180/1A
Tear strength Graves (without nick)	115	kN/m	ISO 34

THERMAL PROPERTIES

Melting temperature (10°C/min)	207	°C	ISO 11357-1/-3
Temp. of deflection under load (0.45 MPa)	110	°C	ISO 75-1/-2
Vicat softening temperature (50°C/h 50N)	90	°C	ISO 306
Vicat softening temperature (50°C/h 10N)	190	°C	ISO 306
Coeff. of linear therm. expansion (parallel)	1.5	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	1.5	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.6 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.6	mm	IEC 60695-11-10

ELECTRICAL PROPERTIES

Relative permittivity (1 MHz)	4	-	IEC 60250
Dissipation factor (1 MHz)	400	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

Density	1210	kg/m ³	ISO 1183
Water absorption	0.65	%	Sim. to ISO 62
Humidity absorption	0.2	%	Sim. to ISO 62

DSM Product

Unlimited. DSM

