

TECHNICAL DATA SHEET

Arnitel® EL550

Envalior
TPC

Processing

Injection molding, Film extrusion

Pellets

Certifications

Food contact

Delivery Form

Product Text

Product Information

Injection Molding, Food Contact Quality, Film Extrusion

ISO 18064 TPC-ET

Processing/Physical Characteristics	Value	Unit	Standard
Melt volume-flow rate, MVR	36	cm ³ /10min	ISO 1133
Temperature	230	°C	
Load	2.16	kg	
Mechanical Properties	Value	Unit	Standard
Charpy impact strength, +23°C	N	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	N	kJ/m ²	ISO 179/1eU
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
Tensile notched impact strength, +23°C	216	kJ/m ²	ISO 8256/1
Stress at 10% elongation	11.1	MPa	ISO 527
Stress at 100% elongation	13.7	MPa	
Strain at break TPE	>300	%	ISO 527
Stress at break TPE	35	MPa	ISO 527
Compression set at 70 °C, 24h	40	%	ISO 815
Thermal Properties	Value	Unit	Standard
Melting temperature, 10°C/min	207	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	-64	°C	ISO 11357-1/-2

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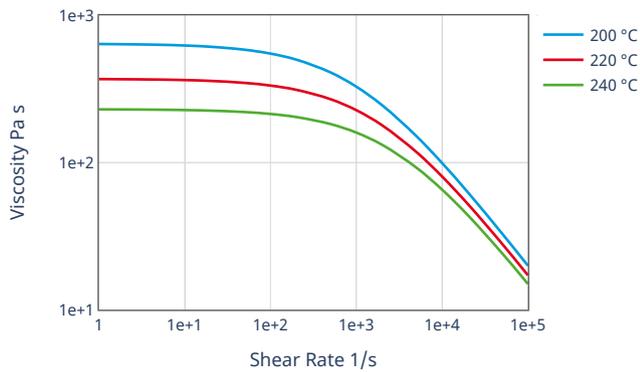
Thermal Properties	Value	Unit	Standard
Temp. of deflection under load, 0.45 MPa	110	°C	ISO 75-1/-2
Vicat softening temperature, B	90	°C	ISO 306
Coeff. of linear therm. expansion, parallel	200	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	200	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	
Yellow card available	yes		

Electrical Properties	Value	Unit	Standard
Relative permittivity, 100Hz	4.4		IEC 62631-2-1
Relative permittivity, 1MHz	4		IEC 62631-2-1
Dissipation factor, 1MHz	400	E-4	IEC 62631-2-1
Volume resistivity	1E11	Ohm*m	IEC 62631-3-1
Electric strength	21	kV/mm	IEC 60243-1
Comparative tracking index	600		IEC 60112

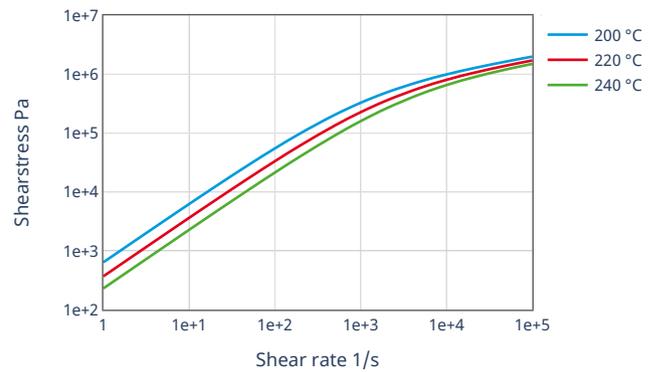
Other Properties	Value	Unit	Standard
Water absorption	0.65	%	Sim. to ISO 62
Humidity absorption	0.2	%	Sim. to ISO 62
Density	1200	kg/m ³	ISO 1183

Diagrams

Viscosity-shear rate



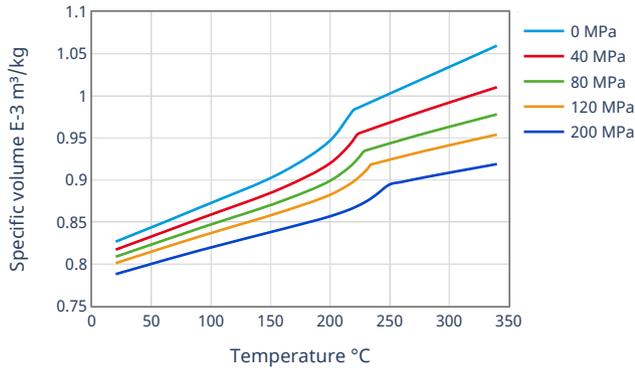
Shearstress-shear rate



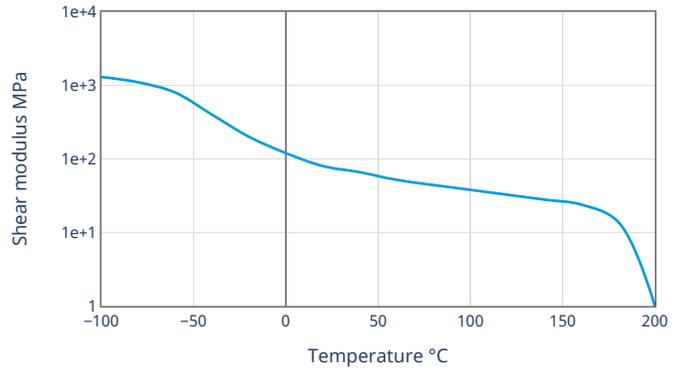
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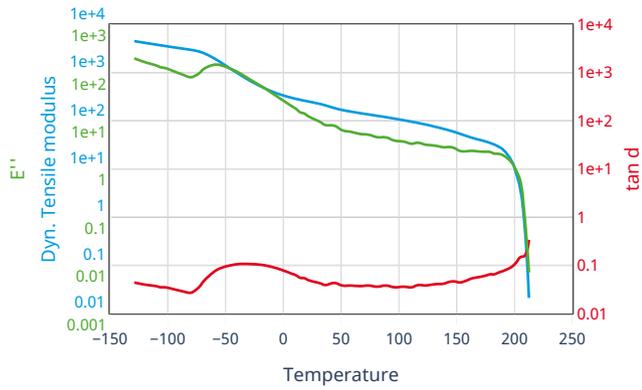
Spec. volume-Temperature (pVT)



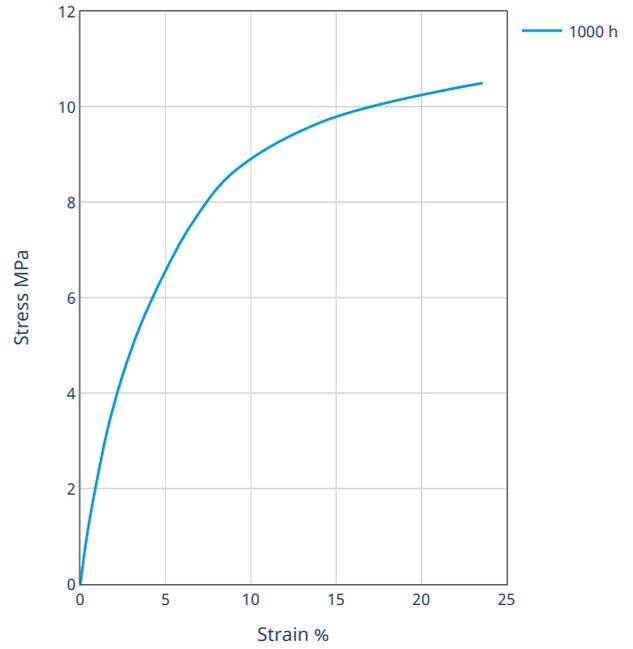
Dynamic shear modulus-temperature



Dynamic tensile modulus-temperature

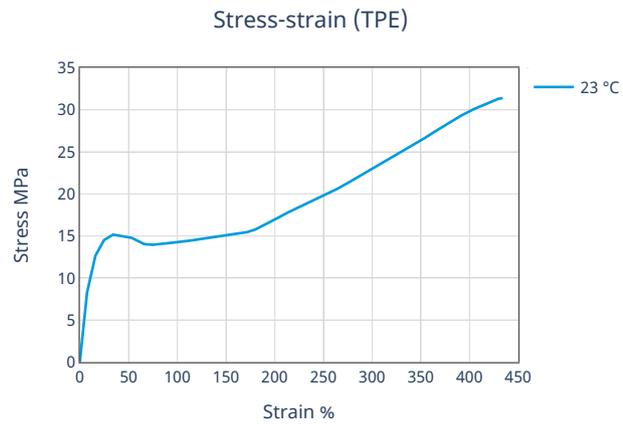


Stress-strain (isochronous) 23°C



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Processing Information

Injection molding

Injection Molding Recommendations

Steel recommendations for molds screws and barrels

Trouble shooting guideline for injection molding