


Arnitel® EL740 - Shore 70 D

TPC

DSM Engineering Plastics

Product Texts

Injection Molding

ISO 18064 TPC-ET

[Arnitel website](#)

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	18	cm³/10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133
Mechanical properties			
ISO Data			
Tensile Modulus	800	MPa	ISO 527-1/-2
Yield stress	36	MPa	ISO 527-1/-2
Yield strain	17	%	ISO 527-1/-2
Nominal strain at break	>50	%	ISO 527-1/-2
Charpy notched impact strength (+23°C)	10	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	6	kJ/m²	ISO 179/1eA
Stress at 10% elongation	34	MPa	ISO 527-1/-2
Stress at 100% elongation	26	MPa	ISO 527-1/-2
Strain at break TPE	250	%	ISO 527-1/-2
Stress at break TPE	43	MPa	ISO 527-1/-2
Compression Set under constant strain, 23°C	20	%	ISO 815
Compression Set under constant strain, 70°C	35	%	ISO 815
Tear strength	215	kN/m	ISO 34-1
Thermal properties			
ISO Data			
Melting temperature (10°C/min)	221	°C	ISO 11357-1/-3
Temp. of deflection under load (0.45 MPa)	120	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	160	°C	ISO 306
Coeff. of linear therm. expansion, parallel	165	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	165	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.6	mm	IEC 60695-11-10
UL recognition	UL	-	-
Electrical properties			
ISO Data			
Relative permittivity, 100Hz	3.7	-	IEC 60250
Relative permittivity, 1MHz	3.3	-	IEC 60250
Dissipation factor, 1MHz	300	E-4	IEC 60250
Volume resistivity	1E13	Ohm*m	IEC 60093
Electric strength	23	kV/mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112
Other properties			
ISO Data			
Water absorption	0.6	%	Sim. to ISO 62
Humidity absorption	0.15	%	Sim. to ISO 62

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Density	1290	kg/m ³	ISO 1183
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Rheological calculation properties

Value

Unit

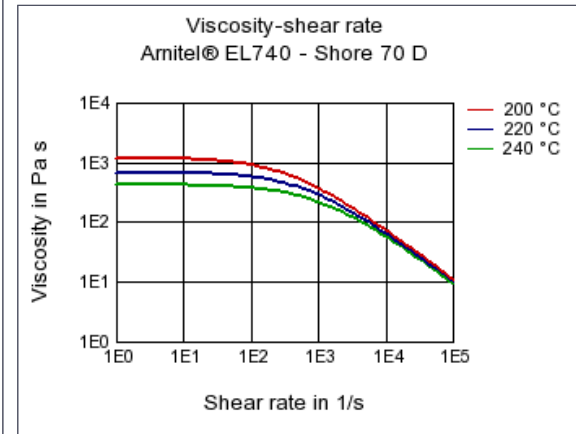
Test Standard

ISO Data

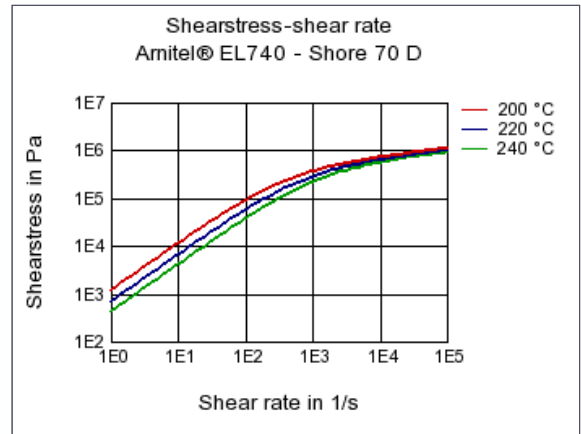
Density of melt	950	kg/m ³	-
Thermal conductivity of melt	0.1	W/(m K)	-
Spec. heat capacity of melt	1900	J/(kg K)	-
Eff. thermal diffusivity	5.54E-8	m ² /s	-

Diagrams

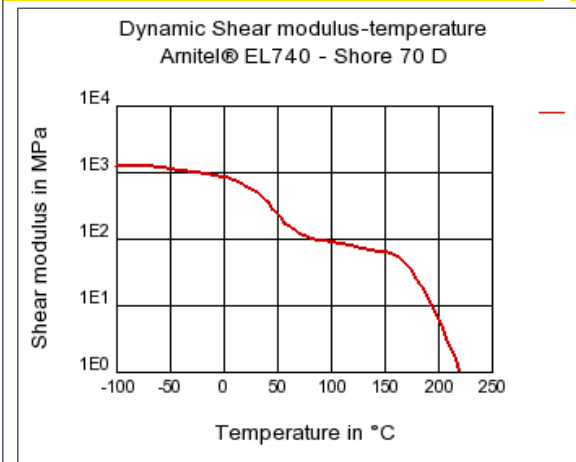
Viscosity-shear rate



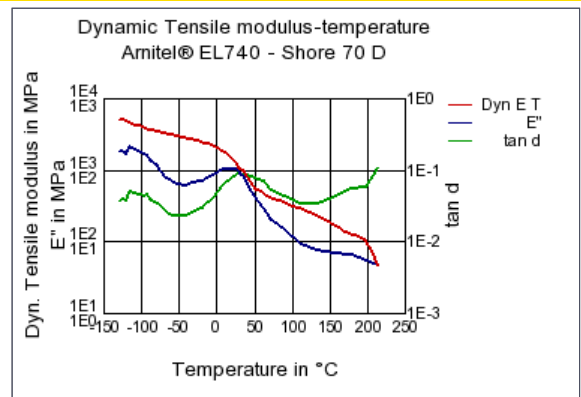
Shearstress-shear rate



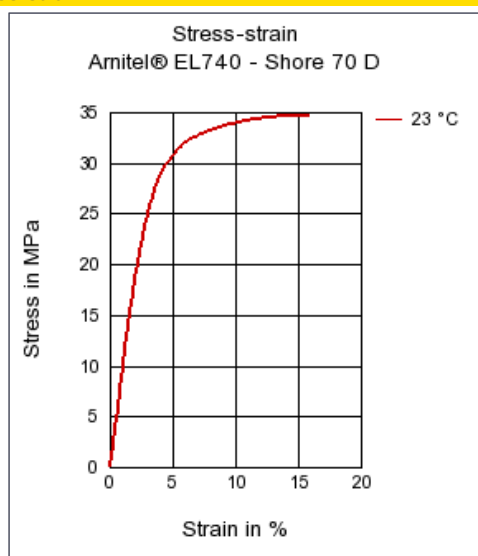
Dynamic Shear modulus-temperature



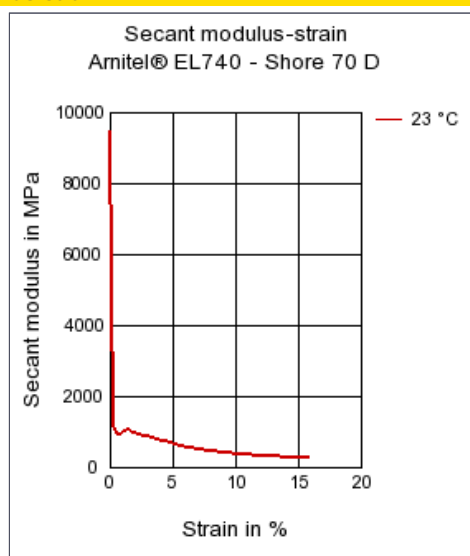
Dynamic Tensile modulus-temperature



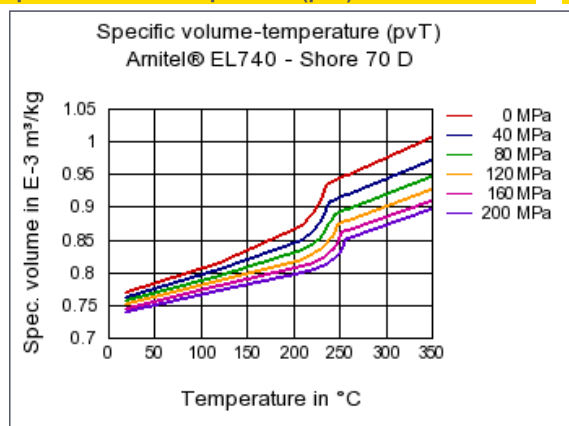
Stress-strain



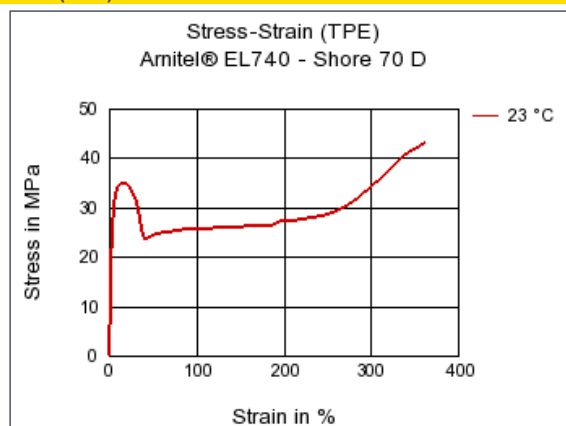
Secant modulus-strain



Specific volume-temperature (pvT)



Stress-Strain (TPE)



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Other text information

Injection Molding

[Injection Molding Recommendations](#)