



## 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
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## ISO Data

Melt volume-flow rate, MVR	18	cm <sup>3</sup> /10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133

Mechanical properties	Value	Unit	Test Standard
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## 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/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	6	kJ/m <sup>2</sup>	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	Value	Unit	Test Standard
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## 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	Value	Unit	Test Standard
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## 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	Value	Unit	Test Standard
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## 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<sup>3</sup> ISO 1183

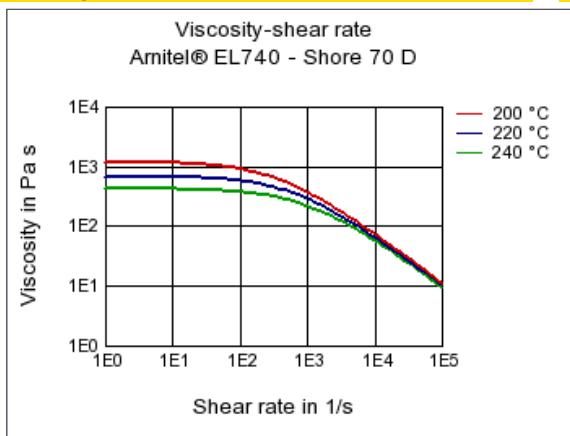
### Rheological calculation properties

#### ISO Data

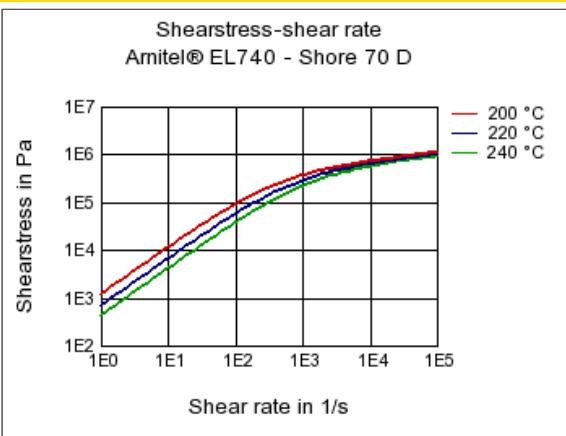
Density of melt	950	kg/m <sup>3</sup>	-
Thermal conductivity of melt	0.1	W/(m K)	-
Spec. heat capacity of melt	1900	J/(kg K)	-
Eff. thermal diffusivity	5.54E-8	m <sup>2</sup> /s	-

### Diagrams

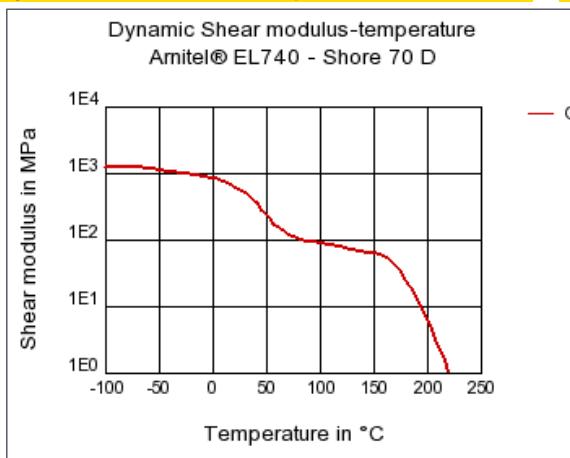
#### Viscosity-shear rate



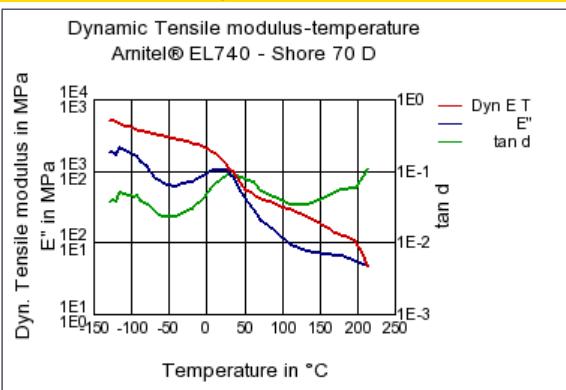
#### Shearstress-shear rate



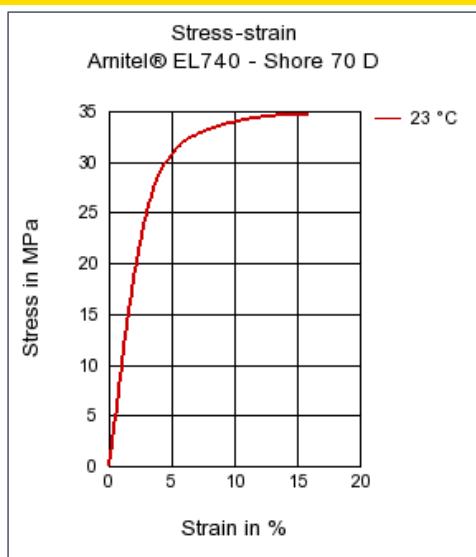
#### Dynamic Shear modulus-temperature



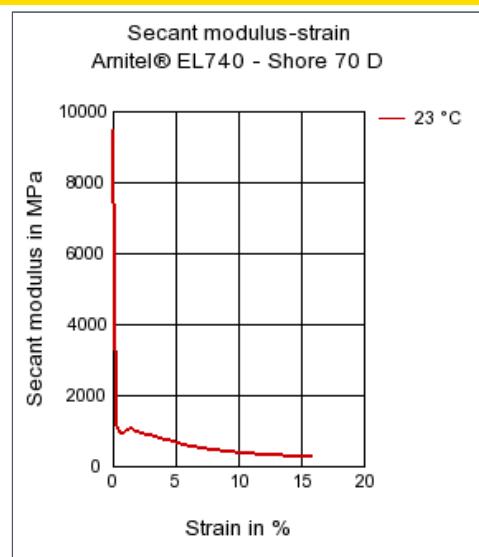
#### Dynamic Tensile modulus-temperature



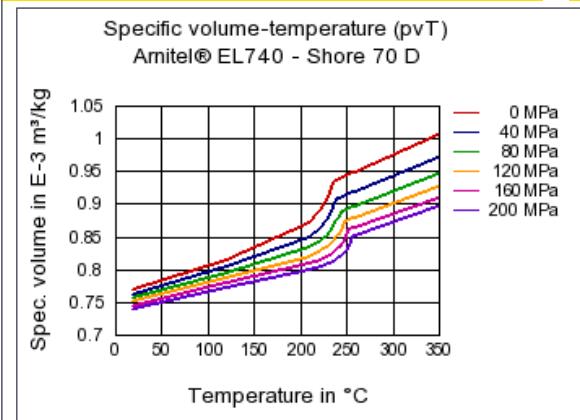
## Stress-strain



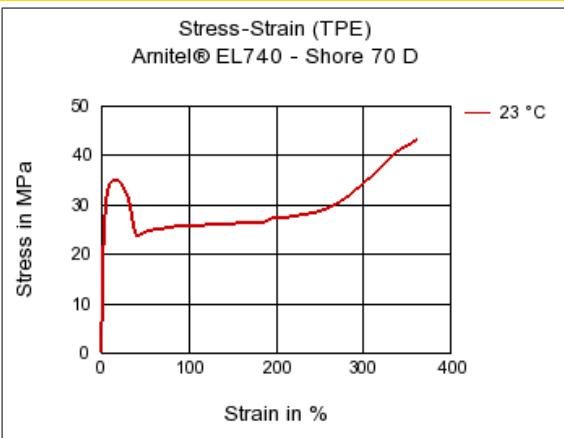
## Secant modulus-strain



## Specific volume-temperature (pvT)



## Stress-Strain (TPE)



## Characteristics

## Processing

Injection Molding

## Delivery form

Pellets

## Other text information

## Injection Molding

[Injection Molding Recommendations](#)