Arnitel® EM630 - Shore 60 D

TPC DSM Engineering Plastics

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	4	cm³/10min	ISO 1133
Temperature	230	°C	ISO 1133
Load	2.16	kg	ISO 1133

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	280	MPa	ISO 527-1/-2
Yield stress	22	MPa	ISO 527-1/-2
Yield strain	29	%	ISO 527-1/-2
Nominal strain at break	>50	%	ISO 527-1/-2
Charpy notched impact strength (+23°C)	N	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	12	kJ/m²	ISO 179/1eA
Stress at 10% elongation	18	MPa	ISO 527-1/-2
Stress at 100% elongation	22	MPa	ISO 527-1/-2
Stress at 300% elongation	20	MPa	ISO 527-1/-2
Strain at break TPE	>300	%	ISO 527-1/-2
Stress at break TPE	31.5	MPa	ISO 527-1/-2
Tear strength	176	kN/m	ISO 34-1

Thermal properties	Value	Unit	Test Standard
ISO Data			
Melting temperature (10°C/min)	212	°C	ISO 11357-1/-3
Vicat softening temperature, 50°C/h 50N	125	°C	ISO 306
Coeff. of linear therm. expansion, parallel	185	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	185	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

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	3.8	-	IEC 60250
Relative permittivity, 1MHz	3.4	-	IEC 60250
Dissipation factor, 100Hz	110	E-4	IEC 60250
Dissipation factor, 1MHz	340	E-4	IEC 60250
Volume resistivity	1E12	Ohm*m	IEC 60093
Electric strength	22	kV/mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112

Other properties	Value	Unit	Test Standard
ISO Data			
Water absorption	0.6	%	Sim. to ISO 62
Humidity absorption	0.2	%	Sim. to ISO 62
Density	1240	kg/m³	ISO 1183

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	240	°C	ISO 294
Injection Molding, mold temperature	35	°C	ISO 10724
Injection Molding, injection velocity	500	mm/s	ISO 294

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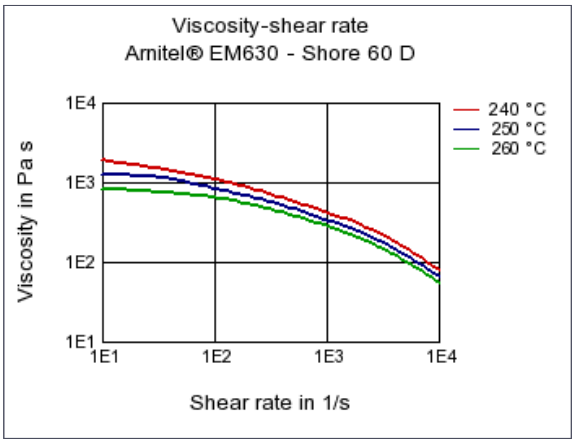
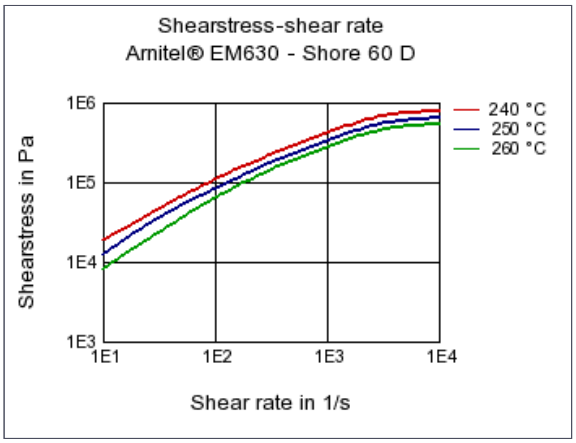
Diagrams

Viscosity-shear rate



Shearstress-shear rate



Characteristics

Processing

Injection Molding, Other Extrusion

Additives

Release agent

Delivery form

Pellets