

Durethan® AM440H3.0 000000
PA66-MX40

Envalior

Injection Molding, 40% Mineral Reinforced, Heat Stabilized, Low Warpage

ISO 1043 PA66-MX40

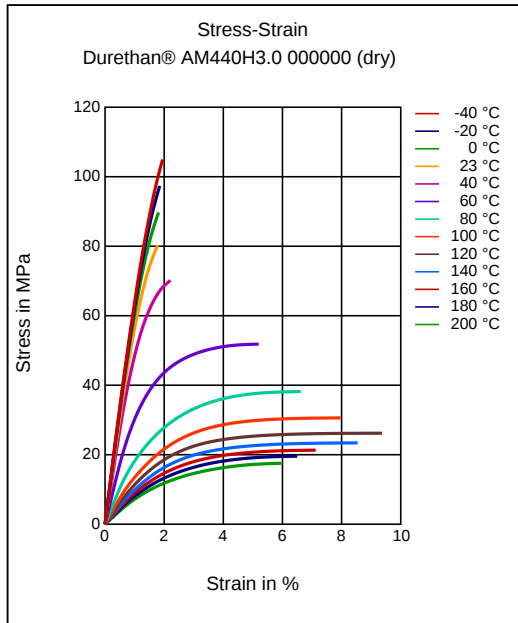
Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	1.3 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	1.1 / *	%	ISO 294-4, 2577
Mechanical Properties			
ISO Data			
Tensile Modulus	6100 / 2700	MPa	ISO 527
Stress at Break	85 / 38	MPa	ISO 527
Strain at Break	2.5 / 10	%	ISO 527
Impact Strength (Charpy), +23°C	40 / 65	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	45 / 35	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	- / 10	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	- / 10	kJ/m ²	ISO 179/1eA
Puncture - maximum force, +23°C	610 / 640	N	ISO 6603-2
Puncture - maximum force, -30°C	610 / 610	N	ISO 6603-2
Puncture energy, +23°C	2.2 / 2.9	J	ISO 6603-2
Puncture energy, -30°C	2.2 / 2	J	ISO 6603-2
Thermal Properties			
ISO Data			
Melting Temperature (10°C/min)	265 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	110 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	230 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	60 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	80 / *	E-6/K	ISO 11359-1/-2
Electrical Properties			
ISO Data			
Comparative tracking index	600 / -	-	IEC 60112
Other Properties			
ISO Data			
Water Absorption	4.5 / *	%	Sim. to ISO 62
Humidity absorption	1.7 / *	%	Sim. to ISO 62
Density	1490 / -	kg/m ³	ISO 1183
Test specimen production			
ISO Data			
Injection Molding, melt temperature	290	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294
Processing Recommendation Injection Molding			
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.12	%	-
Melt temperature	280 - 300	°C	-
Mold temperature	80 - 120	°C	-

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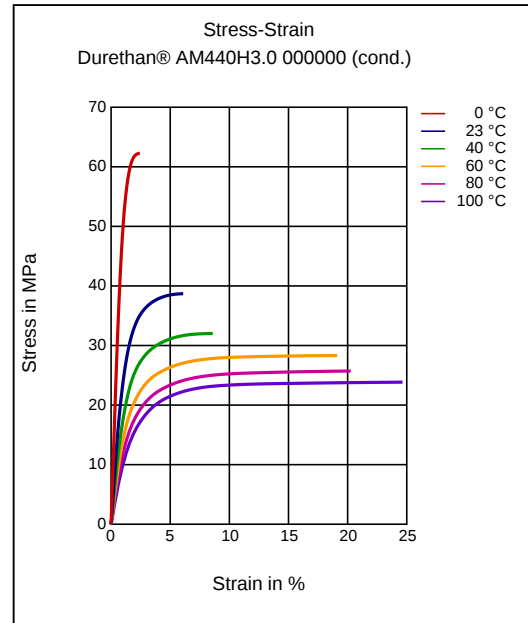
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Diagrams

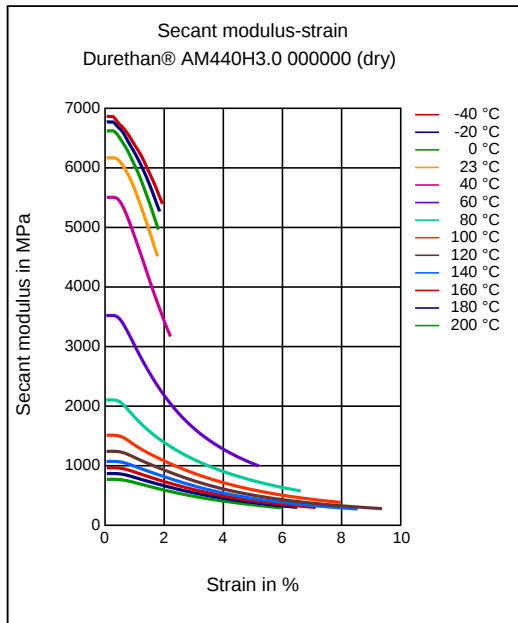
Stress-strain



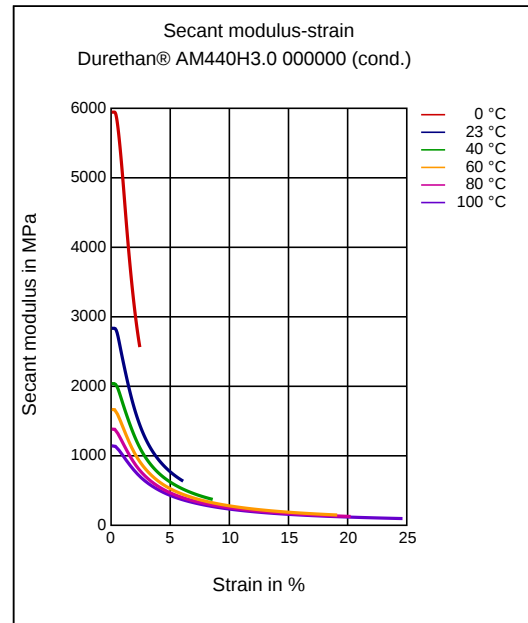
Stress-strain



Secant modulus-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Special Characteristics

Heat aging stabilized

Injection Molding

PREPROCESSING

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Residual moisture content: 0.03 - 0.12%
Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

PROCESSING

Melt temperature (Tmin - Tmax): 280 - 300 °C

Mold temperature: 80 - 120 °C
