

Durethan® T40ZS 000000

PA*

Envalior

Injection Molding, Unreinforced, Extrusion, Transparent

ISO 1043 PA*

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	3300 / 3000	MPa	ISO 527
Impact Strength (Charpy), +23°C	no break / no break	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	no break / no break	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

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	105 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	115 / *	°C	ISO 75-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	V-2 / *	class	UL 94
Thickness tested	1.5 / *	mm	-

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	4.3 / 4.6	-	IEC 62631-2-1
Relative permittivity, 1MHz	3.8 / 4	-	IEC 62631-2-1
Dissipation Factor, 100Hz	400 / 480	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	900 / 1100	E-4	IEC 62631-2-1
Volume Resistivity	1E13 / 1E13	Ohm*m	IEC 62631-3-1
Surface Resistivity	* / 1E15	Ohm	IEC 62631-3-2
Electric Strength	25 / 28	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	6 / *	%	Sim. to ISO 62
Humidity absorption	2 / *	%	Sim. to ISO 62
Density	1180 / -	kg/m ³	ISO 1183

Material Specific Properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	107 / *	cm ³ /g	ISO 307, 1157, 1628

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	270	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

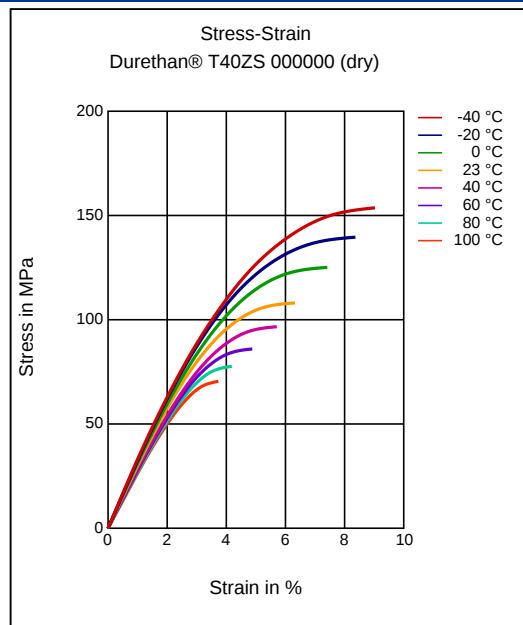
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.12	%	-
Melt temperature	260 - 280	°C	-
Mold temperature	80 - 100	°C	-

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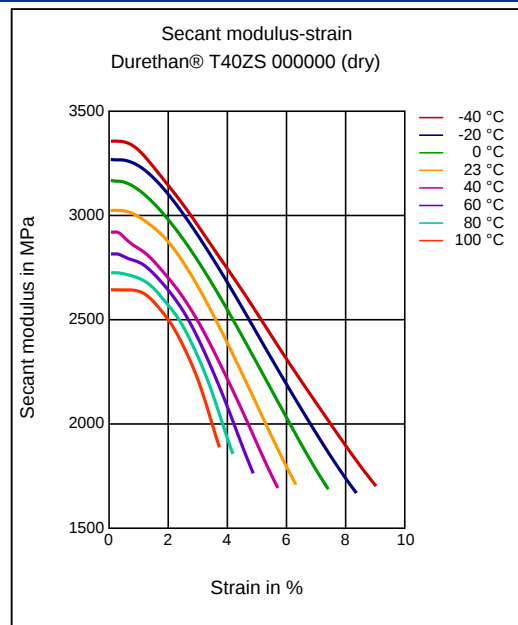
Envalior

Diagrams

Stress-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding, Other Extrusion

Delivery form

Pellets

Special Characteristics

Transparent

Injection Molding

PREPROCESSING

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): 260 - 280 °C

Mold temperature: 80 - 100 °C