

# Durethan® T40

## PA\*

Injection Molding, Unreinforced, Blow Molding Grade, Film Extrusion, Extrusion,  
Transparent

Print Date: 2024-08-24

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
<b>MECHANICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Tensile modulus	3300 / 3000	MPa	ISO 527-1/-2
Yield stress	110 / 90	MPa	ISO 527-1/-2
Yield strain	6 / 5	%	ISO 527-1/-2
Flexural modulus	3000 / 3000	MPa	ISO 178
Flexural strength	150 / 130	MPa	ISO 178
Charpy impact strength (+23°C)	N / N	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength (-30°C)	N / N	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	<10 / <10	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (-30°C)	<10 / <10	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength (-40°C)	<10 / <10	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL PROPERTIES</b>			
	<b>DRY / COND</b>		
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
Coeff. of linear therm. expansion (parallel)	0.7 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.8 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
Burning Behav. at 0.75 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	mm	IEC 60695-11-10
Glow Wire Flammability Index GWFI	960 / -	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	2 / -	mm	IEC 60695-2-12

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## Property Data

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
<b><i>ELECTRICAL PROPERTIES</i></b>			
<b><i>DRY / COND</i></b>			
Relative permittivity (100Hz)	4.3 / 4.6	–	IEC 62631-2-1
Relative permittivity (1 MHz)	3.8 / 4	–	IEC 62631-2-1
Dissipation factor (100 Hz)	400 / 480	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	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 / –	V	IEC 60112
<b><i>OTHER PROPERTIES</i></b>			
<b><i>DRY / COND</i></b>			
Water absorption	6 / *	%	Sim. to ISO 62
Humidity absorption	2 / *	%	Sim. to ISO 62
Density	1180 / –	kg/m <sup>3</sup>	ISO 1183
<b><i>MATERIAL SPECIFIC PROPERTIES</i></b>			
<b><i>DRY / COND</i></b>			
Viscosity number	107 / *	cm <sup>3</sup> /g	ISO 307, 1157, 1628
<b><i>PROCESSING RECOMMENDATIONS</i></b>			
<b><i>VALUE</i></b>			
Drying temperature dry air dryer	80	°C	
Drying time dry air dryer	2-6	h	
Residual moisture content	0.03-0.12	%	acc. to Karl Fischer
Melt temperature (Tmin – Tmax)	260-280	°C	
Mold temperature	80-100	°C	

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