

## PA TW441 Technical Datasheet

**1) Product Description:**

PA TW441 is a heat Stabilized, wear and friction modified PA46.

**2) Applications:**

Advanced engineering application such as auto parts.

**3) Typical data:**

PROPERTY	TEST METHOD	UNIT	TYPICAL VALUE*
Molding shrinkage (parallel)	ISO 294-4	%	2 / *
Molding shrinkage (normal)	ISO 294-4	%	2 / *
Tensile modulus	ISO 527-1/-2	MPa	3300
Tensile modulus (120°C)	ISO 527-1/-2	MPa	800
Tensile modulus (160°C)	ISO 527-1/-2	MPa	650
Tensile modulus (180°C)	ISO 527-1/-2	MPa	600
Tensile modulus (200°C)	ISO 527-1/-2	MPa	500
Yield stress	ISO 527-1/-2	MPa	100 / 55
Yield stress(120°C)	ISO 527-1/-2	MPa	50
Yield stress(160°C)	ISO 527-1/-2	MPa	40
Yield stress(180°C)	ISO 527-1/-2	MPa	35
Yield stress(200°C)	ISO 527-1/-2	MPa	30
Nominal strain at break	ISO 527-1/-2	%	40/ >50
Nominal strain at break(120°C)	ISO 527-1/-2	%	>50
Nominal strain at break(160°C)	ISO 527-1/-2	%	>50
Nominal strain at break(180°C)	ISO 527-1/-2	%	>50
Nominal strain at break(200°C)	ISO 527-1/-2	%	>50
Flexural modulus	ISO 178	MPa	3000 / 900
Flexural modulus(120°C)	ISO 178	MPa	800
Flexural modulus(160°C)	ISO 178	MPa	600
Charpy impact strength (+23°C)	ISO 179/1eU	kJ/m <sup>2</sup>	N/N
Charpy impact strength (-30°C)	ISO 179/1eU	kJ/m <sup>2</sup>	N/N
Charpy notched impact strength (+23°C)	ISO 179/1eA	kJ/m <sup>2</sup>	12/45
Izod notched impact strength (+23°C)	ISO 180/1A	kJ/m <sup>2</sup>	10/40
Melting temperature (10°C/min)	ISO 11357-1/-3	°C	295 / *
Temp. of deflection under load (1.80 MPa)	ISO 75-1/-2	°C	190 / *
Temp. of deflection under load (0.45 MPa)	ISO 75-1/-2	°C	280/*
Coeff. of linear therm. expansion (parallel)	ISO 11359-1/-2	E-4/°C	0.85/ *
Coeff. of linear therm. expansion (normal)	ISO 11359-1/-2	E-4/°C	1.1 / *
Thermal Index 5000 hrs	IEC 60216/ISO 527-1/-2	°C	152
Volume resistivity	IEC 60093	Ohm*m	1E13 / 1E7
Electric strength	IEC 60243-1	kV/mm	25/15
Comparative tracking index	IEC 60112	-	400 /-

Relative permittivity (100Hz)	IEC 60250	-	3.9/22
Relative permittivity (1 MHz)	IEC 60250	-	3.6/4.5
Humidity absorption	Sim. to ISO 62	%	3.7/ *
Density	ISO 1183	kg/m <sup>3</sup>	1180 / -

\* Typical values not to be construed as specifications.

