

PA

Mechanical, Physical and Thermal Properties

Polyamide

properties	condition	standard	unit		unit	
colour				natural		natural
density/specific gravity	23 °C	ISO 1183	kg/m ³	1130	g/cm ³	1,13
hardness	23 °C/3 sec.	ISO 868	Shore D	79 ±3	Shore D	79 ±3
hardness	23°C/15 sec.	ISO 868	Shore D	78 ±3	Shore D	78 ±3
ball indentation hardness	23 °C	ISO 2039-1	MPa	165	psi	23930
tensile strength	23 °C	ISO 527	MPa	80	psi	11600
elongation at break	23 °C	ISO 527	%	40	%	40
compressive strength	23 °C	DIN 53455	MPa		psi	
thermal conductivity		DIN 52612	W/(m*K)	0,29	W/(m*K)	0,29
coefficient of thermal expansion	25 °C - 200 °C		K ⁻¹ * 10 ⁻⁵	8	K ⁻¹ * 10 ⁻⁵	8
coefficient of friction *	23 °C		μ	0,4	μ	0,4
minimum service temperature			°C	-40	°F	-40
maximum service temperature			°C	110	°F	230
young's modulus	23 °C	ISO 527	MPa	3000	psi	435000

* coefficient of friction dry dynamic Steel 16MnCr5 v=0,6m/s; p=0,05 MPa; t=5h

CHEMICAL PROPERTIES

Homopolymere, based on caprolactam

Resistant to lubricants, fuels, solvents, natural oil and greases, water, ester and ketones

Not resistant to strong acids and lyes

Detailed information concerning chemical resistance see Chemical Resistance Guide

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