

PA6 Mechanical, Physical and Thermal Properties					Polyamide	
properties	condition	standard	unit		unit	
colour				nature		nature
density/specific gravity	23 °C	DIN 53479	kg/m ³	1130	g/cm ³	1,13
hardness	23 °C	ISO 868	Shore D	77 ± 3	Shore D	77 ± 3
ball indentation hardness	23 °C	DIN 53456 H135/30	MPa	153	psi	22200
tensile strength	23 °C	ASTM D 4745-79	MPa	80	psi	11600
elongation at break	23 °C	ASTM D 4745-79	%	40	%	40
compressive strength	23 °C	DIN 53455	MPa	110	psi	16000
thermal conductivity		DIN 52612	$\frac{J \cdot 10^3}{m \cdot h \cdot K}$	0,29	$\frac{J \cdot 10^3}{m \cdot h \cdot K}$	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	DIN 53457	MPa	3000	psi	435000

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