Xometry

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PA 6

(Nylon 6)

Details

The fibers are tough but retain high tensile strength and elasticity. It is extremely resistant to wear and has low friction with good electrical insulation. In addition, it has excellent chemical resistance. It is ideal for components that move and slide such as bearings, gears, electronic connectors.

Key Features

Tough • Resistant to wear and chemicals

Thermal Properties

Property	Value
Heat deflection [°C]	260
Glass transition temperature [°C]	47
Vicat softening temperature [°C]	250
Coefficient of thermal expansion [K-1 · 10-6]	80
Thermal conductivity [W/m · K]	0.23
Specific heat capacity [J/kg · K]	1700
Melting point [°C]	260

Mechanical Properties

Property	Value
Tensile strength [MPa]	85
Modulus of elasticity [GPa]	3.3

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Flexural strength [MPa]	117
Flexural modulus [GPa]	3.79
Hardness	83
Impact strength [KJ/m^2]	>3
Elongation at break [%]	50

PhysicalProperties

Property	Value
Density [g/cm^3]	1.15
Water Absorption [%]	1.6
Electrical Resistivity [ohm-cm]	14×10^{15}