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PA 66

(Nylon 6/6)

Details

This is the most common variant of nylon used for engineering applications. It has a high melting temperature. However, it has a relatively low impact strength. It is stiff and resistant to wear and hydrocarbons. It is used in applications that require high strength, ductility and chemical resistance.

Key Features

Stiff • Resistant to wear and hydrocarbons

Thermal Properties

Property	Value
Heat deflection [°C]	235
Glass transition temperature [°C]	47
Vicat softening temperature [°C]	250
Coefficient of thermal expansion [$K^{-1} \cdot 10^{-6}$]	80
Thermal conductivity [$W/m \cdot K$]	0.36
Specific heat capacity [$J/kg \cdot K$]	1500
Melting point [°C]	255

Mechanical Properties

Property	Value
Tensile strength [MPa]	83
Modulus of elasticity [GPa]	3.79
Flexural strength [MPa]	117

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Flexural modulus [GPa]	2.83
Hardness	168
Impact strength [KJ/m ²]	5
Elongation at break [%]	40

Physical Properties

Property	Value
Density [g/cm ³]	1.14
Water Absorption [%]	1
Electrical Resistivity [ohm-cm]	14×10 ¹⁵

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