

Nylon 12 / PA 12

Key Features

Strength • Stiffness • Thermal resistance

Applications

Prototyping • End-use parts • Electronics • Engineering • Consumer goods

Product Description

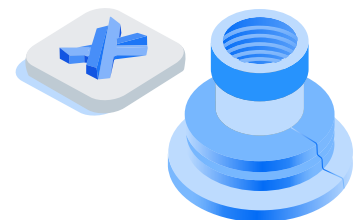
Nylon 12 powder strikes a balance between strength and detail, making it an ideal material for functional prototyping and end-use production of complex assemblies and durable parts. With high tensile strength, ductility, and environmental stability, Nylon 12 powder minimizes water absorption, ensuring longevity and reliability. This general-purpose material, also known as PA 12 (SLS), also offers excellent long-term stability and chemical resistance.

Properties

Tensile modulus	1,850 MPa
Tensile strength	50 MPa
Elongation at break (X/Y, Z)	11, 6%
Flexural strength	66 MPa
Flexural modulus	1,600 MPa
Heat deflection temperature (0.45 MPa)	171°C
Heat deflection temperature (1.80 MPa)	87°C
Softening temperature	175°C
Density	0.93 g/cm ³
Hardness	75D
Flame retardancy (thickness of the sample tested = 3.00 mm)	UL 94 HB

Reference

For more detailed source information, please consult the original document linked [here](#). We encourage users to verify the data's relevance and suitability for their specific needs.



Nylon 12 / PA 12

Key Features

Impact resistance • Strength • Chemical resistance • Biocompatibility

Applications

Prototyping • End-use parts • Electronics • Consumer goods

Product Description

This robust thermoplastic material is engineered for strong, functional, and detailed complex parts, offering high-density structures and excellent chemical resistance to oils, greases, hydrocarbons, and alkalis. Ideal for complex assemblies and watertight applications, it ensures durability in diverse environments. By reusing surplus powder batch after batch and achieving up to 80% surplus powder reusability, it optimizes both cost and part quality, providing industry-leading performance.

Properties

Tensile modulus (X/Y, Z)	1,700, 1,800 MPa
Tensile strength	48 MPa
Elongation at break (X/Y, Z)	20, 15%
Flexural strength @5% (X/Y, Z)	65, 70MPa
Flexural modulus	1,730 MPa
Powder melting point (DSC)	187°C
Heat deflection temperature (0.45 MPa)	175°C
Heat deflection temperature (1.80 MPa)	95°C
Density	1.01 g/cm ³
Hardness	80D

Reference

For more detailed source information, please consult the original document linked [here](#). We encourage users to verify the data's relevance and suitability for their specific needs.

