



Nylon 11 / PA 11

Alternative Designations

Polyamide 11

Key Features

High impact resistance • Resistant to hydrocarbons
• Biocompatible

Description

This material is highly impact resistant with a shore hardness of 80. It has a heat deflection temperature of 50 – 157°C with excellent resistance to hydrocarbons. It is 100% biocompatible with up to 70% reusability. It is used for cases and containers of consumer goods.

Mechanical Properties

Tensile modulus	1647 MPa
Tensile strength	47 MPa
Elongation at break	18 – 21%
Flexural strength	44 MPa
Flexural modulus	0.869 GPa
Hardness (Shore D)	80

Thermal Properties

Melting temperature (20°C/min)	201°C
Heat deflection temperature (1.80 MPa)	50°C
Heat deflection temperature (0.45 MPa)	157°C
Softening temperature	189°C

Physical Properties

Density	1.04 g/cm ³
---------	------------------------

Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit Materialdatacenter.com for further information on this material.