



Data Sheet

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

Thermal Properties

| Tensile modulus | 1647 MPa | Melting temperature (20°C/min) | 201°C |
|---------------------|-----------|--|-------|
| Tensile strength | 47 MPa | Heat deflection temperature (1.80 MPa) | 50°C |
| Elongation at break | 18 – 21% | Heat deflection temperature (0.45 MPa) | 157°C |
| Flexural strength | 44 MPa | Softening temperature | 189°C |
| Flexural modulus | 0.869 GPa | | |
| Hardness (Shore D) | 80 | | |

Physical Properties

| Density | 1.04 g/cm ³ |
|---------|------------------------|
| | 0 |

Reference

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