PA

Polyamide

DESIGNATION	CHEMICAL NAME	TYPE
PA	Polyamide	Thermoplastic

General description

The most common trade name is nylon. The material is supplied in many different grades: PA6, PA6.6, PA11, PA12, PA with oil and glass, and more.

The material has good mechanical properties and is mostly used for machined technical parts.

Processing

PA is available as semi-finished products in the form of sheets, rods and hollow rods.

The material is easy to machine but is not suitable for thermoforming. Bonding is possible.

Applications

Machined technical parts.

Bearings, bushings, slide plates, guide rails, gears, slide and damping plates, trolley wheels and more.

Special features

Several common trade names: Nylon, Oilon, Ertalon, Sustamid, Nylatron.

All PA types absorb moisture to a greater or lesser degree. This affects both dimensions and properties.

Food contact approval for certain types/products.

Properties

PROPERTY	STANDARD	UNIT	VALUE
Density	DIN 53479	g/cm^3	**1.14**
Tensile strength	DIN 53455	N/mm^2	**45-90**
Impact strength at 23 °C	DIN 53453	kJ/m^2	**No break**
Modulus of elasticity	DIN 53457	N/mm^2	**1600-3400**
Elongation at break	DIN 53455	%	**40-100**
Service temperature, continuous	-	°C	**-40/+120**
Thermal expansion	ASTM D 896	mm/m/°C	**0.08**
Flammability	UL 94		**V2**

All information and guidelines are based on generally recognised technical handbooks and are given to the best of our knowledge and in good faith, without liability for any errors.

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