

## Physical properties PA 12G Lauramid A

PA 12G Lauramid A is a polyamide 12 made from pure Laurinlactam by lactam casting. The low viscosity melt is casted unpressured in the mould and is polymerizing there. The processing of reclaim is excluded for technical reasons. The impact strength of PA 12G Lauramid A is modified.

Property	Test Specification	Unit	Value
color			natural / black
Density	DIN EN ISO 1183	kg/m <sup>3</sup>	1.025
Yield stress	DIN EN ISO 527	Mpa	51 - 58
Elongation at yield stress	DIN EN ISO 527	%	9 - 13
Break strength	DIN EN ISO 527	Mpa	30 - 40
Elongation at break	DIN EN ISO 527	%	> 200
Modulus of elasticity (tensile)	DIN EN ISO 527	Mpa	1800 - 2000
Modulus of elasticity (pressure)	DIN EN ISO 604	Mpa	1400 - 1800
Compressive strength	DIN EN ISO 604	Mpa	54 - 58
Impact strength (Charpy)	DIN EN ISO 179 (+23°C)	kJ/m <sup>2</sup>	(N)
	DIN EN ISO 179 (-30°C)	kJ/m <sup>2</sup>	(N)
Notched impact strength (Charpy)	DIN EN ISO 179 (+23°C)	kJ/m <sup>2</sup>	15 - 28
	DIN EN ISO 179 (-30°C)	kJ/m <sup>2</sup>	8 - 18
Water absorption (with standard climate)	DIN EN ISO 62	%	0.9
Water absorption (with standard climate)	DIN EN ISO 62	%	1.4
Vicat-B-50	DIN EN ISO 306	°C	172 - 180
Dielectric strength (50 MHz)	DIN IEC 250	-	3.5
Dielectric loss factor (50 Hz)	DIN IEC 250	-	380 E4
Spec. contact resistance	DIN IEC 93	Ω cm	3 E14
Surface resistance	DIN IEC 93	Ω	6.6 E15

PA 12G Lauramid A is characterized by very low water absorption, a good hydrolysis constancy, a very good dimensional stability, mechanical and chemical resistance.

### Applications:

Metal composite constructions for gear wheels, worm gears and chain wheels, rollers, cylinders, propellers, semi-finished products with metal compounds, other semi-finished products.

This table is a valuable help in the choice of a material. The data listed here fall within the normal range of products properties, but they should not be used to establish material specification limits nor used alone as the basis of design.