

# Technical datasheet

## PA 12 G (Cast polyamide 12 )

<b>Example of application</b>
› gear wheels; pulley

<b>Advantages</b>	<b>Disadvantages</b>
› PA with the lowest specific density › lowest water absorption of all PAs	› bad UV-resistance

<b>Basic information</b>	<b>Specification</b>
<b>Format</b>	<b>round material:</b> 50 mm up to 200 mm available in 0.5 m length <b>sheets:</b> 8 mm up to 60 mm available in 3 m x 1 m

Physical properties	Standard term/Specification*	Unit	Testing method
Density	1.03	g/cm <sup>3</sup>	ISO 1183
Moisture ingress	1.1	%	DIN EN ISO 62

Mechanical properties	Standard term/Specification*	Unit	Testing method
Tensile strength	66	MPa	DIN EN ISO 527
Elongation at break	10	%	DIN EN ISO 527
E-Module	2.200	MPa	DIN EN ISO 527
Notch toughness	8	kJ/m <sup>2</sup>	ISO 179
Rochwellhardness	106	MPa	DIN EN ISO 2039

Thermal properties	Standard term/Specification*	Unit	Testing method
Thermal conductivity	0.23	W/(m·K)	DIN 52612
Linear thermal expansion coefficient based on a fixed initial length	0.8	K <sup>-1</sup> · 10 <sup>-4</sup>	DIN 53752
	1.6	mm	At initial length of 1.000 mm and a temperature difference of 20 °C.
Max. operating temperature, long-term	120	°C	
Max. operating temperature, short-term	n.sp.	°C	
Min. operating temperature, long-term	-50	°C	

Electrical properties	Standard term/Specification*	Unit	Testing method
Resistance	2.4 · 10 <sup>14</sup>	Ω·cm	DIN IEC 60093
Outer surface coefficient	10 <sup>13</sup>	Ω	DIN IEC 60093
Puncture resistance	30	kV/mm	DIN EN 60243

<b>Legend</b>
n.sp. = not specified

Should you require binding and exact values, please ask for the appropriate factory certificate. This may incur additional costs. Please note that all specifications are standard values only, which are subject to production-related fluctuations.  
\*Higher specification on request.

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