

## Product information

### Wefapress PA 6 G + oil

PA 6 G + Oil is a cast polyamide that is produced by direct polymerisation. Featuring integrated lubrication with oil, solid lubricants and stabilisers this grade represents a modification of PA 6 G. This lubrication provides for up to 50% lower frictional resistance and up to 5 times higher wear resistance as compared with other polyamides. The characteristics of PA 6 G + oil are as follows:

- outstanding wear resistance
- low coefficient of friction during dry run



Standard colours:	black, yellow
Special colours:	--
Form of delivery:	sheets, rods (catalogue semi finished products / conveyor systems)
Finished parts:	on request
Fields of application:	<ul style="list-style-type: none"><li>• chain guides and guide rollers</li><li>• bearings</li><li>• deflection rollers</li><li>• guide rails</li><li>• conveying screws</li><li>• conveying stars</li></ul>

## Technical Data Sheet

Material designation	<b>PA 6 G + oil</b>		
Raw material	Cast-Polyamide 6		
Material colour(s)	black / yellow		
<b>Properties</b>	Unit	Test method	Value
Molecular weight (average molar mass)	g/mol		
<b>Mechanical properties</b>			
Density	g/cm <sup>3</sup>	DIN 53479	1.14
Tensile strength	N/mm <sup>2</sup>	DIN 53455	
Shore D hardness, 15s	D scale	DIN 53505	
Ball indentation hardness, 30s	N/mm <sup>2</sup>	DIN ISO 2039 part 1	140
Ultimate tensile strength	N/mm <sup>2</sup>	DIN 53455	40 - 60
Elongation at break	%	DIN ISO / R 527	>50
Modulus of elasticity	N/mm <sup>2</sup>	DIN 53457	2700
Notched impact strength (Charpy)	kJ/m <sup>2</sup>	DIN 53453	>5
Abrasion	%	Sand slurry method	
Coefficient of friction			0.18
<b>Thermal properties</b>			
Dimensional stability under heat	°C	DIN 53461	
Vicat softening temperature	°C	DIN 53460	
Crystallite melting range	°C	DTA	220
Thermal conductivity at 23°C	W/m * K	DIN 52612	0.23
Specific heat at 23°C	kg/kJ * K		
Coefficient of linear expansion at 23°C	K <sup>-1</sup>	DIN 53752	0.8 x 10 <sup>-4</sup>
Application temperature (min.)	°C		-40
Application temperature (constant)	°C		100
Application temperature (max.)	°C		160
<b>Electrical properties</b>			
Volume resistivity	Ω cm	DIN 53482	10 <sup>15</sup>
Surface resistance	Ω	DIN 53482	
Dielectric strength	kV/mm	DIN 53481	100
Relative permittivity	at 50 Hz	DIN 53485	3.7

According to BMW Group's laboratory report No. 03621055, we confirm that this material is free of paint-wetting impairment substances (PWIS-free).

**Notes for the user:**

Data sheet specifications are made to our today's knowledge. This information does not mean that certain properties are agreed upon or assured. Whether or not a material is suitable for a given application is the user's decision. All specifications are subject to change.

Vreden, August 03