

# Materialdatenblatt / Material Data Sheet

## PA6 Filament 0,5kg, 1.75mm

German RepRap PA6 Filament is our unique premium polyamide PA6 originally developed as specialty product line to meet the demand for high-service levels in industries such as automotive and electronics. PA6 is very ductile, strong polymer suitable for harsh environments and high temperatures, up to 150°C, offering excellent layer-to-layer adhesion, strength and toughness compared to other 3D printing materials. Since PA6's bridging performance is unique, the high crystallinity of the polymer allows designs with overhangs.

Note: This is a technical material aimed for industrial applications. Use recommended for medium to advanced users. Contact us for further information.

## Property Data

Properties	Typical Data	Units	Test Method
Melting temperature (10°C/min)	220	°C	ISO 11357-1/-3

## Other Properties

Properties	Typical Data	Units	Test Method
Water absorption	9.5	%	Sim. to ISO 62
Humidity absorption	2.5	%	Sim. to ISO 62
Density	1130	Kg/m <sup>3</sup>	ISO 1183

## Material Specific Properties

Properties	Typical Data	Units	Test Method
Maximum tensile stress (3D printed tensile bars) 0° - 90°	45	MPa	ISO 527-1/-2
Maximum tensile stress (3D printed tensile bars) 45° - 45°	50	MPa	ISO 527-1/-2
Tensile modulus (3D printed tensile bars) 0° - 90°	1710	MPa	ISO 527-1/-2

German RepRap GmbH  
Kapellenstr. 9  
85622 Feldkirchen  
GERMANY

Tel +49 89 / 2488986 - 0  
Fax +49 89 / 2488986 - 99  
info@germanreprap.com  
www.germanreprap.com

St. Nr. 143/140/50933  
Ust.ID DE285277789  
EORI-ID DE1128418  
Amtsgericht München HRB 201675  
Managing Director: Florian Bautz

Bankverbindung:  
Commerzbank  
IBAN DE91700400410133055400  
Swift-BIC COBADEFF700

## Material Specific Properties

Properties	Typical Data	Units	Test Method
Tensile modulus (3D printed tensile bars) 45° - 45°	2120	MPa	ISO 527-1/-2
Elongation at break (3D printed tensile bars) 0° - 90°	7.2	%	ISO 527-1/-2
Elongation at break (3D printed tensile bars) 45° - 45°	15	%	ISO 527-1/-2

## Advantages

- for harsh environments and high temperatures
- perfect for industries such as automotive and electronics
- excellent layer-to-layer adhesion
- very ductile, strong
- suitable for applications with use temperatures up to 150°C
- allows designs with overhangs

German RepRap GmbH  
Kapellenstr. 9  
85622 Feldkirchen  
GERMANY

Tel +49 89 / 2488986 - 0  
Fax +49 89 / 2488986 - 99  
info@germanreprap.com  
www.germanreprap.com

St. Nr. 143/140/50933  
Ust.ID DE285277789  
EORI-ID DE1128418  
Amtsgericht München HRB 201675  
Managing Director: Florian Bautz

Bankverbindung:  
Commerzbank  
IBAN DE91700400410133055400  
Swift-BIC COBADEFF700