PA NYLON Glass Fiber

Polymer Technical Data Sheet

EUMAKERS

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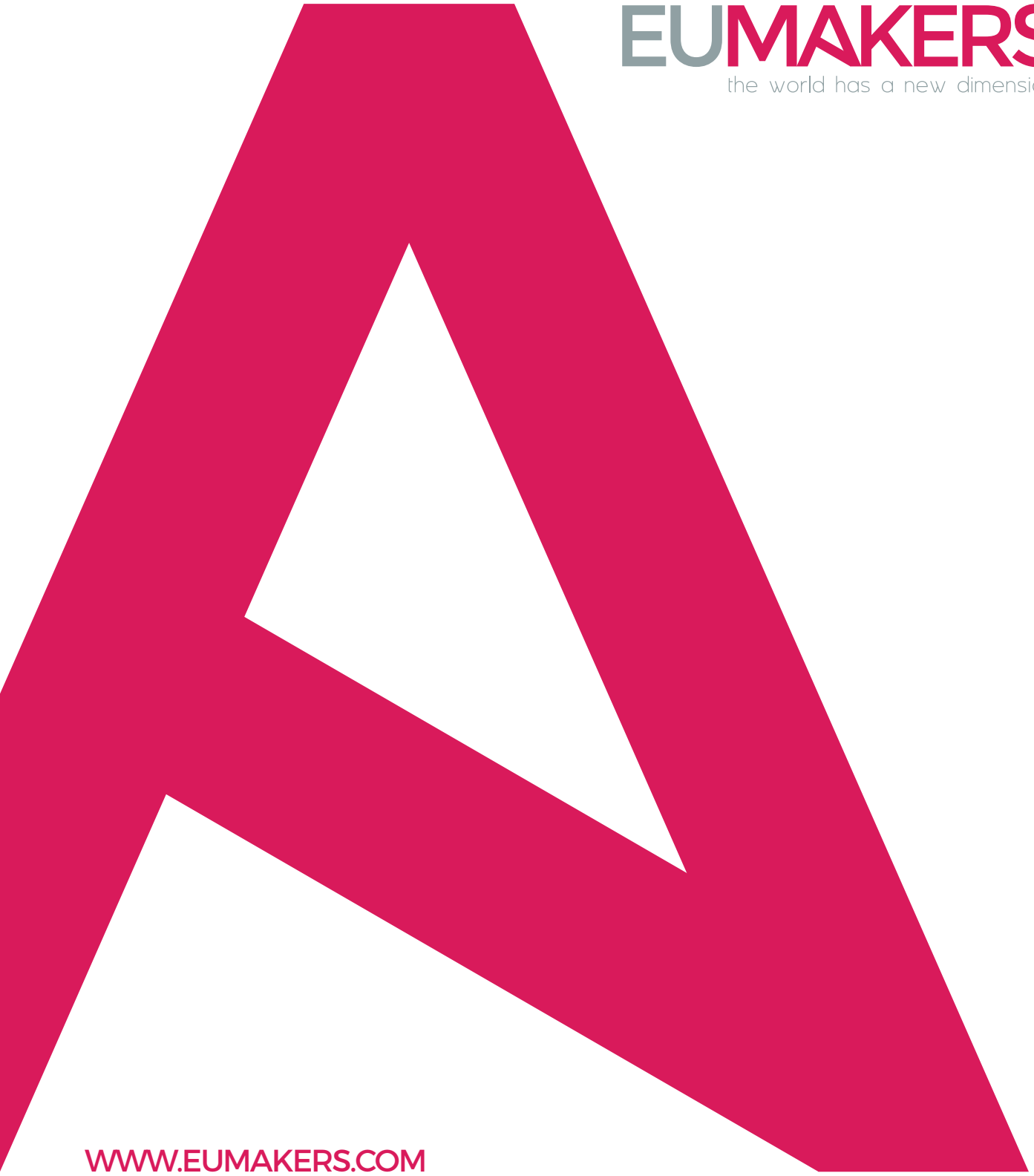


WWW.EUMAKERS.COM

PA NYLON Glass Fiber

Polymer Technical Data Sheet

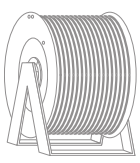
IDENTIFICATION

Commercial Name	EUMAKERS PA NYLON Glass Fiber Filament
Raw Material	Glass Fibers Reinforced PA
Use	3D Printing Applications

COLOR AVAILABILITY

Color	Translucent White | Black

PHYSICAL PROPERTIES	VALUE	STANDARD
Density	1,07 g/cc	ISO 1183



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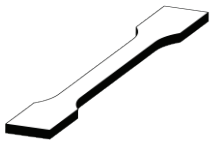
IDENTIFICATION

TENSILE TEST - STANDARD ISO 527

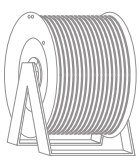
xy

Test specimens printed on Ultimaker 2+ with the following setup:

- Nozzle type: Olsson Ruby
- Nozzle temperature: 260° C
- Heat bed Temp: 70° C
- Print speed: 40 mm/s
- Infill orientation: 45° C



INFILL	15 %	50 %	100 %
Tensile Modulus (Mpa)	32,40	36,90	64,70
Elastic Modulus (Mpa)	1501	1687	2534
Elongation at Break (%)	7,80	8,60	9,20
Energy at Break (J)	7,92	10,36	18,70



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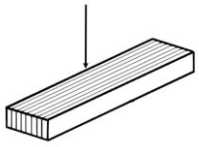
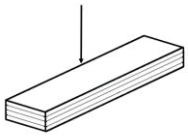
IDENTIFICATION

FLEXTURAL TEST - STANDARD ISO 178

Test specimens printed on Ultimaker 2+ with the following setup:

- Nozzle type: Olsson Ruby
- Nozzle temperature: 260° C
- Heat bed Temp: 70° C
- Print speed: 40 mm/s
- Infill orientation: 45° C





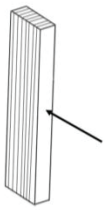
INFILL	50 %	100%	50 %	100 %
	xy - parallel		xy - normal	
Flexural Strength (Mpa)	107,7	125,0	81,00	110,3
Flexural Modulus (Mpa)	2616	3131	1969	2820
Deformation (%)	6,00	5,90	6,20	6,20

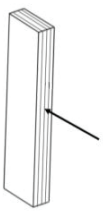
IDENTIFICATION

IMPACT TEST IZOD - STANDARD ISO 180

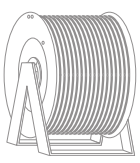
Test specimens printed on Ultimaker 2+ with the following setup:

- Nozzle type: Olsson Ruby
- Nozzle temperature: 260° C
- Heat bed Temp: 70° C
- Print speed: 40 mm/s
- Infill orientation: 45° C





INFILL	50 %	100%	50 %	100 %
	zy - normal		xy - parallel	
Impact Strength (KJ/m²)	46,50	53,60	32,90	52,80
Impact Energy (J)	1,86	2,15	1,31	2,11



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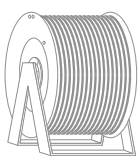
THERMAL PROPERTIES	VALUE	STANDARD
Melting Point	180° C	ISO 11357
Heat Deflection Temperature	160° C	ISO 75
Max Usage Temperature	Long Term | 90° - 120° C	ISO 2578
Max Usage Temperature	Short Term | 150° C	ISO 2578

OTHER PROPERTIES	VALUE	STANDARD
Fiammability	HB	ISO 1210
Dielectric Strength	35 kV/mm	IEC 60243 - 1

FILAMENT SPECIFICATIONS AND PRINTING SETTINGS	
Diameter 1.75 mm	± 0,05 mm
Diameter 2.85 mm	± 0,05 mm
Roundness Deviation	max 2%
Suggested Print Temperature	240° - 260° C
Suggested Print Speed	40 mm/s
Suggested Bed Temperature	60° - 70° C
Cooling Fan	20 - 60 %



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