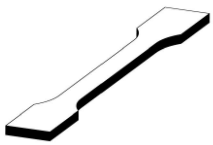
Technical Data Sheet

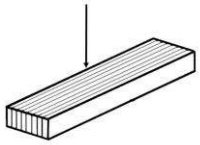
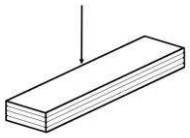
CHROMATIK PRO NYLON GLASS

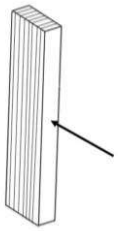
IDENTIFICATION	
Commercial name	Chromatik Pro Nylon Glass
Raw Material	Glass Fibers Reinforced PA
Use	3D printing applications

COLOR AVAILABILITY	Natural - Black

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

MECHANICAL PROPERTIES			
TENSILE TEST – STANDARD ISO 527			
- Nozzle type: Olsson Ruby - Nozzle Temperature: 260 ºC - Heat bed Temp: 70 ºC - Print speed: 40 mm/s - Infill orientation: 45 ºC	 xy		
Infill	15%	50%	100%
Tensile strength (Mpa)	32,4	36,9	64,7
Elastic Modulus (Mpa)	1501	1687	2534
Elongation at break (%)	7,8	8,6	9,2
Energy at break (J)	7,92	10,36	18,7

FLEXURAL TEST – STANDARD ISO 178				
- Nozzle type: Olsson Ruby - Nozzle Temperature: 260 ºC - Heat bed Temp: 70 ºC - Print speed: 40 mm/s - Infill orientation: 45 ºC	zy- parallel 		xy- normal 	
Infill	50%	100%	50%	100%
Flexural strength (Mpa)	107,7	125,0	81,0	110,3
Flexural Modulus (Mpa)	2616	3131	1969	2820
Deformation (%)	6,0	5,9	6,2	6,2

IMPACT TEST IZOD – STANDARD ISO 180				
- Nozzle type: Olsson Ruby - Nozzle Temperature: 260 ºC - Heat bed Temp: 70 ºC - Print speed: 40 mm/s - Infill orientation: 45 ºC	zy- normal 		xy- parallel	
Infill	50%	100%	50%	100%
Impact strength (KJ/m^2)	46,5	53,6	32,9	52,8
Impact Energy (J)	1,86	2,15	1,31	2,11

THERMAL PROPERTIES	VALUE		STANDARD
Melting Point	180ºC		ISO 11357
Heat Deflection Temp.	160ºC		ISO 75
Max Usage Temperature	Long Term	90 – 120ºC	ISO 2578
Max Usage Temperature	Short Term	150ºC	ISO 2578

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

FILAMENT SPECIFICATIONS AND PRINT SETTINGS	
Diameter 1.75mm	1.75 ± 0.05 mm
Diameter 2.85mm	2.85 ± 0.05 mm
Roundness deviation	max 2%
Suggested Print Temperature	250 – 265 °C
Suggested Print Speed	40 mm/s
Suggested Bed Temperature	60 – 70°C
Cooling fan	20-60%