

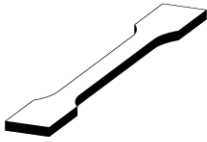
Technical Data Sheet

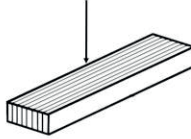
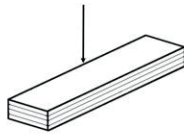
Prima SELECT™ NylonPower Glass Fiber

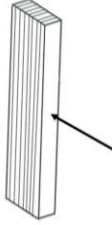
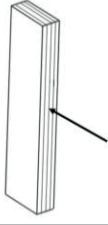
| IDENTIFICATION | |
|-----------------|--|
| Commercial name | Prima SELECT™ NylonPower Glass Fiber |
| Raw Material | Glass Fibers Reinforced PA |
| Use | 3D printing applications |
| Manufacturer | Prima Creator, Kantyxegatan 25 F, 213 76 Malmö, SWEDEN |

| COLOR AVAILABILITY | Natural - Black |
|--------------------|-----------------|
|--------------------|-----------------|

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

| MECHANICAL PROPERTIES | | | |
|---|--|-------|------|
| TENSILE TEST – STANDARD ISO 527 | | | |
| 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 | 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 | | | | |
|--|---|-------|---|-------|
| Test specimens printed on Ultimaker 2+ with the following setup: <ul style="list-style-type: none"> - Nozzle type: Olsson Ruby - Nozzle Temperature: 260 °C - Heat bed Temp: 70 °C - Print speed: 40 mm/s - Infill orientation: 45 °C | 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 | | | | |
|--|--|------|--|------|
| Test specimens printed on Ultimaker 2+ with the following setup: <ul style="list-style-type: none"> - Nozzle type: Olsson Ruby - Nozzle Temperature: 260 °C - Heat bed Temp: 70 °C - Print speed: 40 mm/s - Infill orientation: 45 °C | zy- normal | | xy- parallel | |
| |  | |  | |
| Infill | 50% | 100% | 50% | 100% |
| Impact strength (KJ/m²) | 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 | 180°C | | ISO 11357 |
| Heat Deflection Temp. | 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 |
|---------------------|----------|-------------|
| 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% |