



Part Number: 2503180002

Description: 3D Filament, PLA, 2.85mm, Blue, 750g

PLACTIVE AN1™ is an innovative Nanocomposite developed with a high quality PLA and a patented, scientifically validated and highly effective Nano-Copper additive.

- Antibacterial action has been scientifically validated eliminating more than 99.99% of fungi, viruses.



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- Antibacterial action has been scientifically validated eliminating more than 99.99% of fungi, viruses, bacteria and a wide range of microorganisms.
- Clinically tested in prosthesis for amputees with excellent results. Ideal for the manufacture of other medical applications where it's dangerous to have bacterial contamination, such as postoperative prostheses, wound dressing and surgical equipment.
- Antibacterial properties confirmed by two microbiology laboratories in Chile and USA.
- PLACTIVE™ is a FDA Registered Material and EU compliant (No. 10/2011, No. 1935/2004 and No. 2023/2006).
- The manufacturer also has certification ISO 9001/2015 and is REACH compliant.
- The Nano-Additive maintains all the mechanical properties of the material
- It has thermoforming characteristics that facilitates post-processing and final adjustments of the 3D printed application.
- Non-toxic product and environmentally friendly (biodegradable).

Technical Specification:

PRINTING TEMP. 190 - 210°C

PRINTING SPEED 40 - 50MM/SEG

LAYER HEIGHT 0.1MM  
 PRINT BED TEMP.  $\pm$  0 - 60°C

| Physical Properties                               | PLACTIVE™     | ASIM Method |
|---|---------------|-------------|
| Specific Gravity, g/cc                            | 1.24          | D792        |
| MFR, g/10 min(2)                                  | 6             | D1238       |
| Relative Viscosity(3)                             | 4             | D5225       |
| Clarity   | Transparent   | -           |
| Peak Melt Temperature, °C                         | 145-160       | D3418       |
| Glass Transition Temperature, °C                  | 55-60         | D3418       |
| <b>Mechanical Property</b>                        |               |             |
| Tensile Yield Strength, psi (MPa)                 | 8700 (60)     | D882        |
| Tensile Strength at Break, psi (MPa)              | 7700 (53)     | D882        |
| Tensile Modulus, psi (MPa)                        | 524,000 (3.6) | D882        |
| Tensile Elongation, %                             | 6             | D882        |
| Notched Izod Impact, ft-lb/in (J/m)               | 0.3 (16)      | D256        |
| Flexural Strength, psi (MPa)                      | 12,000 (83)   | D790        |
| Flexural Modulus, psi (MPa)                       | 555,000 (3.8) | D790        |
| Heat Distortion Temperature, °C 66 psi (0.45 MPa) | 55            | E2092       |