

MATERIAL CERTIFICATION REPORT

The data presented below is offered in good faith. The values represent acceptable starting points for users to further calibrate the tested material. Every 3D Print is different, therefore, these values are acceptable for the operator to use as a starting point for advanced calibration. Advanced tuning and slicer profiles, in the Filament Innovations supplied ODIN slicer, are only available to Filament Innovations customers. Filament Innovations is not responsible for equipment damage if these values are implemented on non-Filament Innovations equipment or there is an operator error.

Note: Maximum flow-rates and maximum print speeds are not tested as these values are dependent on the geometry of the 3D file, in terms of real world results. For example, tall and narrow geometries will need to be printed slower with more cooling, in comparison to large and flat shapes.

MATERIAL

Name: CPX
Manufacturer: Filament Innovations & MCG
Plastic Form: Pellet
Drying: None
Unique Properties: High-Impact CoPoly PP

HARDWARE

Printer: ARES
Manufacturer: Filament Innovations
Pellet Extruder: PULSAR by Dyze Design
Nozzle: 3mm
Nozzle Material: Tool Steel

PROCESSING

Top Barrel (C): 235
Bottom Barrel (C): 255
Nozzle (C): 275
Bed (C): 60C for First Five Layers
Bed Surface: BuildTak
Bed Glue: BuildTak PP Adhesive
Chamber (C): 32

SLICER

Name: ODIN
Layer Width (mm): 4
Layer Height (mm): 2
Speed (mm/s): 25
Flow Rate: 90%
Pressure Advance: 0.08
Fan Cooling*: 50%

*CPX is a non-filled, high-impact, Co-Poly PP material designed for applications in the prosthetics field. Cooling should be reduced when available to avoid early crystallization. CPX does not need to be dried and can be printed right from the pellet box.

Certification report was generated on July 12th, 2023 by Michael Gorski (PhD, MBA).