

Test Pieces

A Selection of test pieces used to access the printing of various materials to determine the preferred printing preferences.

- 1) 1cm³ test for printed density, By Ian Hiscocks (Izzy) a solid 1cm cube to access accuracy and material density.
- 2) Quick Temperature filament test, by Arjan. A test piece that reduces the temperature every 10mm by 5°C. Each file test a temperature range of 20°. Available online at <https://www.youmagine.com/designs/quick-temperature-fillament-test>
- 3) Volume Flow Test, (Test print for Ultimaker 2), by Arther, A test piece that prints at a static temperature increasing feed rates starting at 3mm³/s up to 10mm³/s. Available online at <https://www.youmagine.com/designs/test-print-for-ultimaker--2>
- 4) Ultimaker Robot, tests various features of print performance. The original file supplied with the Ultimaker 2 machine, several files from the original, the standard with no Brim, with a brim for ABS or materials requiring additional brim for bed adhesion. Scaled versions scaled to suit nozzle size.
- 5) Treefrog, by Morena Protti, Nice test piece for testing the overhangs. Available online at <http://www.thingiverse.com/thing:18479>
- 6) Tag, a simple test piece for a materials sample swatch also used to check the flow setting to achieve 100% coverage without under or over extrusion, Produced by Ian Hiscocks (Izzy), a range of Tags with text for many manufactures and area to add notes with a sharpy pen, not yet available online
- 7) 3DBenchy - The jolly 3D printing torture-test, another test piece for various performance tests. Available online at <http://www.thingiverse.com/thing:763622>

Manufacturers Recommended Settings		Personal preferred Settings
Nozzle temperature	°C	°C
Bed Temperature	°C	°C
Speed (mm/s)	50 mm/s	mm/s
Cooling Fan Speed	%	%
Max Flow Rate	mm ³ /s at °C	
Retraction	4.5mm @ 25mm/s	mm ³
Other specifications		
Density	g/cm ³	
Diameter & Tolerance		
Flexy Modulus		Glass Transition Temp °C
Bed Adhesive		

X (mm)	Y (mm)	Z (mm)	(mm3)	(cm3)	g	density
10.08	10.02	9.9	999.9158	0.999916	1.23	1.230104
mm3/s	Nozzle	Layer				
10	0.4	0.1	0.012566	795.7747		