



HEAT CONDUCTING 3D PRINTING PLASTICS

TCPoly has developed high thermal conductivity 3D printing filaments for use on FDM 3D printers.

- Thermal conductivity up to **50X** higher than traditional plastics (>10 W/m-K)
- Electrically insulating available
- Flexible and stiff options available



3D PRINTER FILAMENT

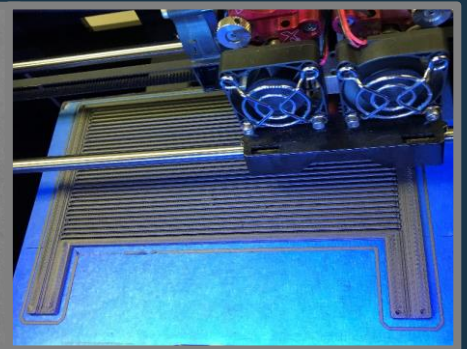
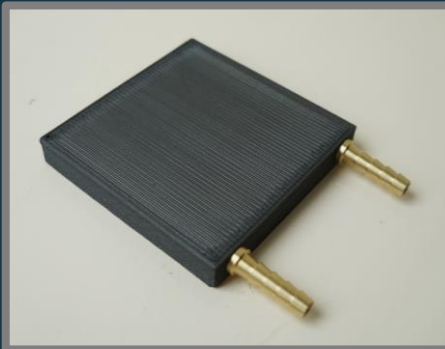
HIGH PERFORMANCE PLASTIC COLD PLATES

✓ Light-Weight

✓ Corrosion Resistant

✓ Reliable

✓ Custom Designed



Benefits of 3D Printing:

- Complex Internal Geometries
- Unlimited Customization
- Short Lead Times
- Can be electrically insulating for direct mounting of components

Coldplates can be made to order, contact us for more details

For similar performance and cost, TCPoly cold plates have superior corrosion resistance and can be up to **10 times lower weight** than traditional technologies. Through 3D printing, TCPoly is enabling the rapid realization of new thermal solutions.



HIGH PERFORMANCE PLASTIC COLD PLATES



TCPoly All Plastic

Lytron CP10G03

Active area	150x90 mm ²	150x90 mm ²
Cooling Fluid	Water	Water
Flowrate	1.0 gpm	1.0 gpm
Weight	150 g	500 g
Weight Normalized Resistance*	67.5 g-°C/W	170 g-°C/W
Resistance**	0.4 °C/W	0.34 °C/W

*Calculated by multiplying the thermal resistance by the weight .

**Measured value using in-house test at 1 GPM flow rate . The Aluminum cold plate manufacturer value is 0.07 °C/W.

HIGH PERFORMANCE AT 1/3 THE WEIGHT

