PRODUCT DATASHEET

MONOCURE 3D
Advanced 3D Printer Products

TPU FLEXIBLE FILAMENT

END USE

TPU is the thermoplastic elastomer used in FFD fused filament deposition 3D printing. The absence of warping and the fact no primer is needed, make it ideal for filament 3D printers when objects need to be flexible and elastic. The fact that TPU is a thermoplastic allows those filaments to be melted again by the 3D printer "extrusion" head, and then cooled back into the solid-elastic piece.

PHYSICAL PROPERTIES

Product Code(s)	TPU-BLACK-800, TPU-BLUE-800, TPU-RED-800, TPU-SKIN-800, TPU-TRAN-800, TPU-GREEN-800, TPU-ORNG-800, TPU-TRANRED-800, TPU-WHITE-800
Colour(s)	Black, Blue, Red, Skin, Transparent, Green, Orange, Trans Red, White
Density (g/cm3)	1.2 (Test Standard - ASTM D792)
Hardness (ShoreA)	95 (Test Standard - ASTM D2240)
Tg (DSC, 10°C/min)	-28 (Test Standard - DSC)
Tensile Strength (Mpa)	45 (Test Standard - ASTM D412)
100% Modulus (Mpa)	15 (Test Standard - ASTM D412)
300% Modulus (Mpa)	30 (Test Standard - ASTM D412)
Break Elongation (%)	500 (Test Standard - ASTM D412)

APPLICATION

TPU is well known for its applications in wire and cable jacketing, hose and tube, in adhesive and textile coating applications, as an impact modifier of other polymers. Properties of Monocure 3D TPU include: high abrasion resistance, low-temperature performance, high shear strength, high elasticity, transparency, oil and grease resistance.

PRINTER SETTINGS

Spool Net Weight: 0.8kg
Diameter: 1.75mm ± 0.05mm
Print Temperature: 190 - 220°C
Hot Bed Temperature: 0 - 50°C
Print Speed: 20-50mm/s

Monocure 3D Pty Ltd
Unit 16, 364 Park Road
Regents Park,NSW 2144,
AUSTRALIA

T:(612) 9738 5340
E:administrator@monocure3d.com.au
W: www.monocure3d.com.au