



TPU 98A

FLEXIBLE AND CHEMICALLY RESISTANT

MADE FOR

bigrep **ONE**bigrep **PRO**bigrep **STUDIO**COMPATIBLE
FFF 3D PRINTERS

BigRep's TPU 98A is a **flexible filament** that is strong, durable, UV-stabilized, and highly **chemically resistant**. Perfectly suited for industrial applications, especially where parts may be exposed to oil, grease, or chemicals, TPU 98A is also rugged. With **high impact strength**, tear strength, durability, and abrasion resistance, TPU parts can withstand heavy wear and tear.

Its great layer and bed adhesion result in **strong, geometrically accurate parts** with minimal warping or deformation. While being flexible, BigRep TPU 98A is a relatively rigid elastomere. The hard/softness of 3D printed parts can be tuned by altering slicing settings for more or less rigidity. With **excellent damping behavior**, TPU 98A is perfect for **manufacturing aids**, particularly those interfacing with sensitive parts and equipment.

Flexible with
Shore 98AHigh Chemical
ResistanceExcellent Impact
StrengthGreat Layer
AdhesionDurable and
Abrasion Resistant

PHYSICAL PROPERTIES	TEST METHOD	VALUE
Density	ISO 1183	1.18 g/cm ³
Filament Diameter	-	2.85 mm +/- 0.05
Color Availability	-	Black, Red, Transparent
Filament Net Weight	-	2.5, 4.5, 8.0 kg
MECHANICAL PROPERTIES	TEST METHOD	VALUE
Shore A Hardness, 3s	ISO 7619-1	98A
Shore D Hardness, 15s	ISO 7619-1	52D
Compression Set at 23°C, 72h	ISO 815	35%
Compression Set at 70°C, 24h	ISO 815	42%
Abrasion Resistance	ISO 4649	25 mm ³
Stress at 100% Elongation	ISO 527	15 MPa
Stress at 300% Elongation	ISO 527	30 MPa
Stress at Break, TPE	ISO 527	40 MPa
Elongation at Break, TPE	ISO 527	450%
Charpy Notched Impact Strength, +23°C	ISO 179	No break
Tear Strength	ISO 34	175 kN/m
THERMAL PROPERTIES	TEST METHOD	VALUE
Vicat Softening Temperature	ISO 306	105 °C
Glass Transition Temperature (Tg)	DSC	-30 °C
Melting Temperature (Tm)	DSC	190 °C
Continuous Use Temp (UL Yellow Card)	UL 746	50 °C
COMPLIANCE	<input checked="" type="checkbox"/> REACH Compliant <input checked="" type="checkbox"/> RoHS Certified <input checked="" type="checkbox"/> FDA Compliant	

PROPERTIES	RECOMMENDED USAGE
Nozzle Temperature	210 - 240 °C
Bed Temperature	50 - 60 °C
Printer Compatibility	BigRep ONE, BigRep PRO, BigRep STUDIO, BigRep STUDIO G2
Fan Speed	0 - 50%
Surface Adhesion	<ul style="list-style-type: none"> Kapton (additional adhesion using glue, e.g. Magigoo) BigRep SWITCHPLATE
Drying	TPU 98A is highly hygroscopic. Recommended drying at 80 °C for 4 - 6 hours.
Storage and Shelf Life	Keep dry, avoid sunlight, and store at room temperature. Use BigRep SHIELD for best results. When stored properly, product has a shelf life of 24 months.
Handling	Use the BigRep Keep-Dry Box for best material printability.
Post-Processing	Wear gloves to avoid possible microdamage to skin. Use a dust mask and protective glasses when processing.
Support	<ul style="list-style-type: none"> Breakaway BigRep BVOH