

3D RAPID TUFF™ RESIN

END USE

Monocure 3D TUFF™ resin is a unique blend of advanced urethanes specifically designed to produce a part that possesses high tensile strength. These mechanical properties provide a right balance of strength, flexibility and a hard surface finish. Use M3D TUFF™ if you intend to 3D print robust engineering prototypes; it was designed to withstand high stress and strain. Once fully post-cured, TUFF™ can also be machined, painted or polished for further finishing.

PHYSICAL PROPERTIES

Product Code(s)	3DT-3878C
Colour(s)	Clear appearance
Viscosity	200 - 300 cps @ 25°C (Brookfield RVT)
Odour	Negligible Characteristic
Active Solids	100%
Shelf Life	24 months
UV Cure	225nm to 420nm
Layer Height	10um – 100um
Cure Speed	Fast with UV LED
Storage	Dark Cool, Dry place out of direct sunlight
Wash Up	RESINAWAY® or IPA (Isopropyl Alcohol)



APPLICATION

Before every use, mix the resin well by shaking the bottle vigorously for one minute (larger containers will require shaking for longer). Models should always be designed solid without any hollowing. To help with unsupported areas, ensure you use well-positioned, solid supports. Carefully pour the resin into the printers vat, ensure that there is no sunlight or any artificial UV light in the room as it may cause the resin to cure. Follow the printer manufactures instructions on how to use the printer; you can check our website for help with the printer settings. We recommended you print simple, low height models when dialling in your 3D printer and resin settings. After the model has finished printing, for best results, clean off excess resin with RESINAWAY®. Return the unused resin into the bottle using a fine paper/mesh filter. Please store the bottle in a dark, cool & dry place away from direct sunlight.

TUFF™ requires post-curing to reach its optimal mechanical properties. We recommend using a 405nm LED Ultra-Violet light to post-cure the model. It is recommended to post-cure for at least 30mins to improve the tensile strength of the resin, but up to 2 hours will further enhance the mechanical properties.

PACKAGING

Monocure 3D RAPID TUFF RESIN is packed in 500ml, 1ltr & 5ltr black UV safe, plastic bottles with a foil induction seal and a screw top cap.