

FPU 50 Overview



FPU 50 is an impact, abrasion and fatigue resistant semi-rigid material that is a good choice for parts that must withstand repetitive stresses such as living hinges or friction fits.

MATERIAL PROPERTIES Ref TDS for more info.

Tensile Modulus	860 +/- 110 Mpa
Ultimate Tensile Strength	29 +/- 1 Mpa
Elongation at Break	280 +/- 15%
Flexural Stress	32 +/- 1 Mpa
Impact Strength	40 +/- 5 J/m
Heat Deflection Temp	78°C
Shore Hardness	71, Shore D
Density	1.053 g/cm ³

STORAGE

Temperature	17 - 25°C (64 - 77 °F)
Packaging	400 ml cartridge

Notes

- Can be used immediately from storage.

RESIN DISPENSING & PRINTING

Supplemental information available.

Ratio	10:1	Burn off	10 ml every dispense
Speed	1	MMD	No
Mixing tip	Orange	Pot life	8 hours
		Release film	Not required/ optional

Notes

- Stir resin after dispensing, when adding more resin and between prints.

WASHING

Solvent	99% Isopropanol
Exposure	5 min max
Part Washer	Yes Vertrel™ solvent blend

Notes

Manual Process

- 2 min orbital shaker at 130 RPM
- Mid-wash touch up with swabs (or wipes), compressed air, or spinner.
- 2 min orbital shaker at 130 RPM (if necessary).
- Air dry or dry with swabs (or wipes), compressed air, or spinner.
- 1 min spot clean with swabs (or wipes) or compressed air, as needed.
- Air dry or dry with swabs (or wipes) or compressed air.

CURING

Supplemental information available.

Cure start	w/in 15 hrs of printing	UV	<ul style="list-style-type: none"> • Do not use the UV oven, even if salt baking
Salt bake	Yes	Thermal	<ul style="list-style-type: none"> • Program 3 - Pattern 3 • 12 hours at 120°C

Compatible baking implements

- Ceramic baking tray (clean)
- Non-stick aluminum foil
- Silicone sheets
- Pan mesh