



ULTEM™ 9085 Resin

What is ULTEM™ 9085 resin?

ULTEM™ 9085 resin filament is a PEI (polyetherimide) high-performance FDM thermoplastic that is strong, lightweight and flame retardant (UL 94-V0 rated). It features excellent heat resistance and high impact strength. It also possesses favorable flame, smoke, and toxicity (FST) characteristics. ULTEM™ 9085 resin is available in natural and black on the F900™ and Fortus 450mc™ printers. The following six additional colors are available on the Fortus 450mc using the T16 model tip and SUP8500B™ support material: Jana White (AIC 12.36), White 7362 (AIC 12.16), Red, Aircraft Gray, Gunship Gray, and Dream Gray (AIC 2.49).

Certified for high performance.

ULTEM™ 9085 resin Certified Grade (only available in Natural) meets more stringent test criteria and possesses documented traceability from filament back to raw material lot number.

Included documentation:

- Certificate of Analysis – for both raw material and filament are supplied, documenting test results and identification to match filament manufacturing lot number to raw material batch number.
- Certificate of Conformance – confirms that the material is manufactured in compliance to approved Stratasys and industry specifications.

Key Attributes

- Meets FST (flame, smoke, toxicity) requirements
- High strength-to-weight ratio
- High heat deflection temperature
- Flight and other certifications in the aerospace industry
- Slice heights: 10, 13, 20

Applications

- Concept modeling
- Functional prototyping
- Manufacturing tooling aids, jigs and fixtures
- End-use parts

Common Industries

- Aerospace
- Government & Military
- Automotive

Printing Challenges

ULTEM™ 9085 resin is a moisture sensitive material. For best results, follow the [Material Storage and Drying Best Practice](#). For various colors of ULTEM™ 9085 resin, best print results were obtained when the filament moisture content was below 0.01%. Longer drying times were required to obtain drier filament.

Part Number	Description
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Filament Canisters^{1,2}

355-02310	ULTEM™ 9085 resin Natural, 92.3 cu in - Plus
355-08310	ULTEM™ 9085 resin Natural, 184 cu in - Plus
355-23101	ULTEM™ 9085 resin CG, 92.3 cu in - Plus
312-20001	ULTEM™ 9085 resin CG, 184 cu in - Classic
355-70050	ULTEM™ 9085 resin Red, 92.3 cu in - Plus
355-70051	ULTEM™ 9085 resin Jana White, 92.3 cu in - Plus
355-70052	ULTEM™ 9085 resin Dream Gray, 92.3 cu in - Plus
355-70053	ULTEM™ 9085 resin White 7362, 92.3 cu in - Plus
355-70054	ULTEM™ 9085 resin Gunship Gray, 92.3 cu in - Plus
355-70055	ULTEM™ 9085 resin Aircraft Gray, 92.3 cu in - Plus
355-02311	ULTEM™ 9085 resin Black, 92.3 cu in - Plus
312-20000	ULTEM™ 9085 resin Natural, 92.3 cu in - Classic
312-20018	ULTEM™ 9085 resin Natural, 184 cu in - Classic
312-20200	ULTEM™ 9085 resin Black, 92.3 cu in - Classic
355-03220	SUP8500B Support, 92.3 cu in - Plus
310-30600	SUP8500B Support, 92.3 cu in - Classic

Printer Consumables

511-10401	T16 tip, 0.010 in. (0.254 mm) layer height
511-10410	T16A tip, 0.010 in. (0.254 mm) layer height
511-10701	T20 tip, 0.013 in. (0.330 mm) layer height
511-10750	T40A tip, 0.020 in. (0.508 mm) layer height
325-00475 ³	900 high temperature build sheet, 0.02 x 26 x 38 in. (0.51 x 660 x 965 mm)
325-00275 ⁴	900 & 450 high temperature build sheet, 0.02 x 16 x 18.5 in. (0.51 x 406 x 470 mm)
310-00300 ⁵	High Temperature build sheet, 0.03 x 16 x 18.5 in. (0.76 x 406 x 470 mm)

¹ Classic canisters are compatible with all Fortus 400mc™ and Fortus 900mc™ printers prior to s/n L502

² Plus canisters are compatible with all Fortus 450mc, all Stratasys F900, and Fortus 900mc printers s/n L502 and up

³ Compatible with Stratasys F900 and Fortus 900mc

⁴ Compatible with Fortus 450mc, Stratasys F900 and Fortus 900mc

⁵ Compatible with Fortus 400mc