

© goengineer 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 F3300™, F900® and Fortus 450mc™ printers. The following six additional colors are available on the F900 and 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.

ULTEMTM 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
Filament Canis	sters ^{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
363-00400	MTRL, F3000 series, (M), ULTEM™ 9085 Resin (NATURAL), 4100 cc
363-00450	MTRL, F3000 series, (M), ULTEM™ 9085 Resin (BLACK), 4100 cc
355-03220	SUP8500B Support, 92.3 cu in - Plus
310-30600	SUP8500B Support, 92.3 cu in - Classic
363-00720	MTRL, F3000 series, (S), SUP8500B, 4100 cc
Printer Consul	mables (Fortus 450mc and F900)
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
325-00475³	900 high temperature build sheet, 0.02 x 26 x 38 in. (0.51 x 660 x 965 mm)
325-002754	900 & 450 high temperature build sheet, 0.02 x 16 x 18.5 in. (0.51 x 406 x 470 mm)
Printer Consur	mables (F3300)
363-30200-S	F3300 Sheet Bundle, High Temp .02 x 26 x 28, 10
533-00410-S	Hot End, FDM, N410 support (0.25 mm / 0.010 in. slice
533-00500-S	Hot End, FDM, N500 (0.25 mm / 0.010 in. slice)
533-00750-S	Hot End, FDM, N750 (0.050 mm / 0.020 in. slice)

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

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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