Flame Retardant Resin:

- Flame Retardant Resin
    - Description: Flame Retardant (FR) Resin is a self-extinguishing, halogen-free, certified UL94 V-0 SLA material with favorable flame, smoke, and toxicity (FST) ratings. Use FR Resin to easily 3D print flame-retardant parts with excellent part quality, heat resistance, and high creep resistance.
    - Price: $249 | €249 | £219 | CHF279 per 1 kg (0.84 L)

Q: What certifications does FR Resin pass?

A: Please review all testing in the technical data sheet. We are UL 94 V-0 certified and have test data on FAR 25.853 Appendix F, Part I (a) (1) (ii)12 seconds Vertical Burn as well as smoke (ASTM E662) and toxicity tests (BSS 7229)

In case, other tests are requested by customers, you can see the following table for correspondence between FAR, Airbus and Boeing standards

CORRESPONDENCE BETWEEN FAR 25.853, AIRBUS AND BOEING STANDARDS

The following table lists the correspondence of testing methods between FAR 25.853, AITM and BSS.

Test description	FAR 25.853	Airbus ABD 0031 specification	Boeing specification
Flammability 60 seconds Vertical	FAR Part 25, § 25.853 (a) and Appendix F, Part I, para. (a)(1)(i)	AITM 2.0002A	BSS 7230 F1
Flammability 12 seconds Vertical	FAR Part 25, § 25.853 (a) and Appendix F, Part I, para. (a)(1)(ii)	AITM 2.0002B	BSS 7230 F2
Flammability 15 seconds Horizontal	FAR Part 25, § 25.853 (a) and Appendix F, Part I, para. (a)(1) (iv)	AITM 2.0003	BSS 7230 F3
	FAR Part 25, § 25.853 (a) and Appendix F, Part I, para. (a)(1) (v)		BSS 7230 F4
Heat Release	FAR Part 25, § 25.853 (d) and Appendix F, Part IV	AITM 2.0006	BSS 7322
Smoke Density	FAR Part 25, § 25.853 (d) and Appendix F, Part V	AITM 2.0007A & B	BSS 7238
Combustion Toxicity	N/A	AITM 3.0005	BSS 7239

Q: Are there special workflow considerations for FR Resin?

A:

Shake the resin cartridges vigorously while rotating occasionally for at least 2 minutes before starting your first print. *Not doing so may affect the flame retardancy properties of your printed parts.*

a. If it has been more than 2 weeks since your last print, shake the cartridge again for 2 min and stir the resin in the tank before printing.

The resin is viscous, so allowing it to automatically dispense into a new tank for the first time before printing will result in a printer timeout error. Instead, please follow instructions for manually pre-filling the resin tank before printing

a. Priming a Form 3: Unscrew the vent cap at the top of the cartridge and manually pour around 350 ml of the resin into the new resin tank
b. Priming a Form 3L: Unscrew the vent cap at the top of the cartridge and manually pour the contents of one full cartridge of resin into the new resin tank.

Q: Is there any PreForm job set up guidance?

A: Part Setup: We recommend printing parts on rafts and supports instead of directly on the build platform for easy removal. However, if parts need to be directly printed on the build platform, we recommend printing on Build Platform 2 for easy removal. For parts that seem stuck to the build platform, we recommend using a thin scraper tool and gently prying off the parts for successful removal.

Q: Are we recommending any finishing techniques (ie sanding)? What's the printed surface finish like?

A: Sanding or polishing to create a smoother surface by removing scratch marks can be done after the post-cure. Sanding with a 600 grit sandpaper is sufficient to remove support nubs. Using a lower grit may additionally abrade the surface. For a smoother finish, higher grit sandpaper all the way up till 3000 grit can be used. Alternatively, polishing wheels combined with a rotary tool (also available in the *Formlabs Finishing Tools* kit) can also be used for a quicker and even surface finish.

Q: A customer wants to test the self-extinguishing feature of the sample part. What should I say?

A: Users can burn printed samples and understand how the parts self-extinguish. The UL 94 V-0 rating is achieved for a minimum wall thickness of 3mm and upon following the instructions listed on the Blue Card.

Build Platform 2L:

- Build Platform 2L
    - Description: Build Platform 2L is Formlabs' next-generation build platform for Form 3L and Form 3BL with patented Quick Release Technology, allowing you to quickly and easily remove parts from the build platform without tools in seconds.
    - Price: $599, €599.00, £519.00, CHF 649.00

Q: Does Build Platform 2L pass biocompatibility testing?

A: Yes, Build Platform 2L is certified biocompatible.

Q: What materials can you use with Build Platform 2L?

A: Most Formlabs Resins, except Durable, Elastic and Flexible Resins at launch.

Q: What is the best way to actuate the Build Platform 2L?

A:

- For smaller parts, place the build platform on its side and engage the push tabs downwards, flipping the platform over if needed to engage the push tabs on the opposite side.
- For large, tall, or heavier parts, place the platform flat on the table, then push both tabs on each long side at the same time (push tabs closest to you, then further from you).
- Note: You can push one tab at a time to control the release if needed.

Q: Is there any PreForm job set up guidance? Are there any parts that are not compatible with Build Platform 2L?

A:

- As Build Platform 2L only bends in one direction during part removal, it's important to align the long edge of your parts perpendicular to the bend axis of the Build Platform for a better release. To do this in PreForm, simply orient the long edge of your part parallel to the front of your build scene.
- Quick Release Technology is not compatible with mini-rafts. We recommend using full rafts or printing directly to the build platform.
- It is not recommended to print small parts that are less than 30 mm, as they don't consistently release using Build Platform 2L.

Q: What parts are CRPs?

A: The flexible print surface.

Q: How do we recommend cleaning the Build Platform 2L?

A:

- If you're not changing resins for the next print, you can wipe down the top surface with a bit of IPA on a paper towel. The platform doesn't need to be perfectly clean, but you do want to make sure there aren't any hard bits of resin left on the print surface before starting your next print.
- If you are switching between resins, or you are not planning to print with the build platform for the next few weeks, you will need to remove the print surface and clean all surfaces thoroughly. This can be done with a paper towel and IPA by hand, or you can use the Form Wash L by removing the flexible print surface and placing it in the Form Wash L basket, with the build platform body on the forks.

Q: How do I separate the flexible print surface from the body? How do I re-attach it?

A:

- To remove the flexible print surface, lift the front two tabs toward yourself and then push one of the tabs on the backside away from you. This will disengage the print surface from the Build Platform body.
- To reattach the flexible print surface to the platform body, align one side of the print surface with the channel on the build platform body, then rotate the print surface down. It should self-align, but you can flex and release the build platform to ensure the surface snaps back into the correct position.

Q: Is there a part removal jig for the Build Platform 2?

A: There is not a part removal jig included with the Build Platform 2.