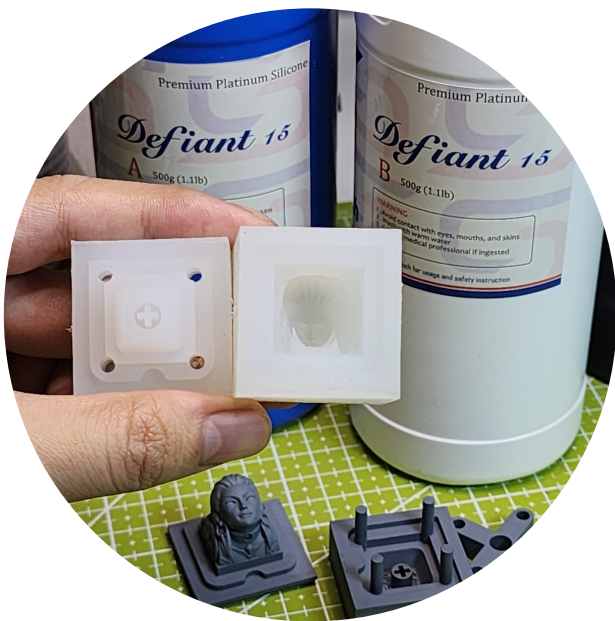




Defiant 15 User Guide



Introducing Siraya Tech Defiant 15 Platinum Silicone:

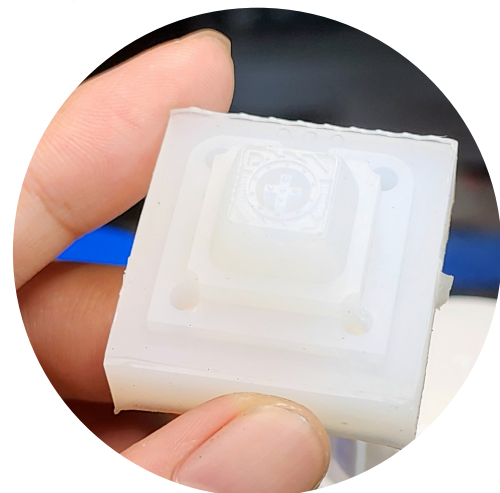
Welcome to the Siraya Tech Defiant 15 User Guide! We've designed this guide to be an engaging and accessible resource for users of all skill levels. So, whether you're new to mold-making/3D printing or a seasoned pro, we're confident that you'll find this guide helpful and easy to follow. Let's dive in!

DEFIANT 15 PLATINUM SILICONE: KEY FEATURES

- Hardness index of Shore 15A.
- Exceptional resistance to silicone poisoning, especially from UV resin.
- Minimal post-processing required for proper mold curing.
- Ideal balance of hardness and flexibility for general molding applications.
- Outstanding material strength, including tear and heat resistance.
- FDA Food Safe.
- Resin Selection and Post-Processing: Essential for 3D UV Resin Prints.

Post-processing steps

Defiant 15 is a popular choice for those working with 3D printing UV resin. For optimal results, we recommend using our **Fast, Build, Blu, Easy and Sculpt resins**, as no coating is needed.



Follow these post-processing steps to ensure successful curing with Defiant 15 silicone:

01

1. Clean your print with 90%+ IPA or Ethanol: Remove uncured resin by hand or using an ultrasonic bath (5 minutes). A hair-based brush is helpful for thicker resins. Consider using two baths: one dirty and one clean. The goal is to remove all uncured resins.

2. Dry your print completely: A hairdryer works well for this step.

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3. Submerge your print in water: Find a clean bucket, fill it with water, and fully submerge your print.

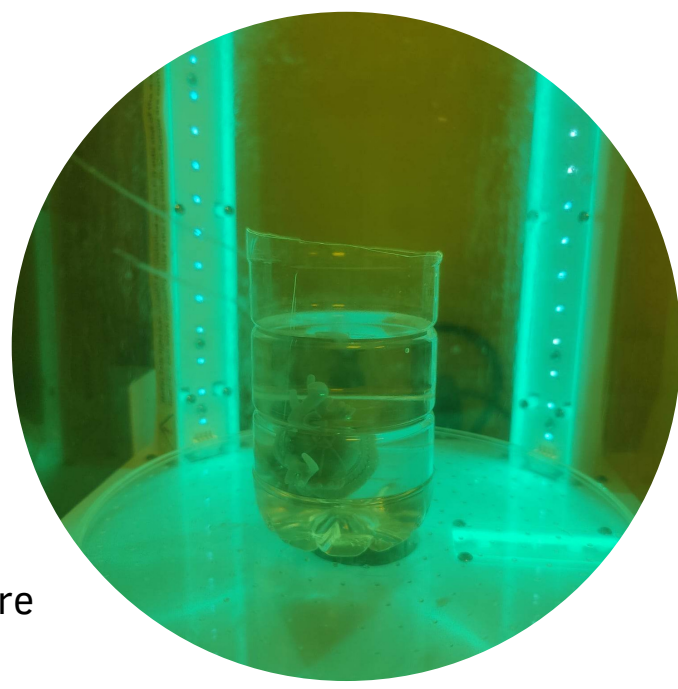
4. Cure your submerged print. This is a critical step for ensuring Defiant works with the resin print.

04

For most models without deep features:

Cure your print for 30 minutes while it's submerged in water. Do not use sunlight to cure; use a UV curing light fixture instead.

For models with **deep recesses** or areas where water might be trapped inside: You can **repeat** the above step by replacing the water and then submerging the part again to cure for an additional 30 minutes.



Models with deep features and many openings may require more time to prepare the print with this water curing method.

05

5. Dry your print once more: Use a low heat oven set to 45C for 10 minutes.

6. Your print is now ready for use with Defiant 15 silicone!

06

Note: We can't guarantee performance when using Defiant 15 with third-party resins. They may work, but we don't have test data to confirm compatibility.



Using Defiant 15: Step-by-Step Guide

Defiant 15 is similar to most 1:1, two-part platinum silicones when it comes to making a mold.

Make sure to follow the resin selection and post processing guidelines above.

Then, follow these steps:

01

1-Prepare two clean containers: Glass is preferred, as it won't inhibit platinum silicone curing.

2-Mix Part A in its bottle: Ensure consistency by stirring with a mixing stick.

02

03

3-Mix Part B in its bottle: Follow the same process as for Part A.

4-Weigh your empty container: Use a scale and the tare function to set it to zero.

04

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5-Pour desired amounts of Parts A and B: For example, if you need 500g of silicone, pour 250g of each part into the container. Your scale should show 500g.

6-Mix Parts A and B thoroughly: Scrape the container walls and bottom.

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07

7-Consider degassing: Although Defiant 15 releases bubbles quickly, degassing is recommended for best results, especially in a colder (<20C) environment.

8-Pour or brush to make a mold: Your silicone is ready for use!

08

RECOMMENDATION

We recommend use Defiant 15 in an indoor environment with temperatures above 20C for best curing speed and results.

Pot life: Approximately 15 minutes

Full cure time: 4-6 hours (at 25C ambient temperature)

Technical Data:

Appearance:	Translucent	Density (g/cm ³):	1.1
Hardness (Shore A):	15	Tensile strength (Mpa):	5.5
Tear strength (K N/m):	15	Elongation (%):	550

SOME HELPFUL DEMO VIDEOS:

<https://www.youtube.com/watch?v=hP0k1DcjFp0&t=244s>

https://www.youtube.com/watch?v=zsugB_dkqD0

A NOTE ON PRODUCT DEVELOPMENT:

Defiant was meticulously developed in collaboration with numerous prop-making professionals. Our primary objective was to simplify post-processing while maximizing the success rate of silicone curing. Through extensive testing and evaluation of over 30kg of silicones, we've discovered the perfect formula. We proudly dedicate Defiant silicone to the talented prop-makers in our community who have contributed significantly to our growth.



Platinum silicone poisoning presents a unique challenge, as it arises not only from 3D printing resins but also from the silicone manufacturing process itself. To achieve the best possible results, it's crucial to identify the ideal combination of silicone and resins. Defiant 15 has been engineered to exhibit greater tolerance compared to traditional platinum silicone; however, certain resins inherently offer better compatibility with silicone and necessitate less post-processing.

--Images courtesy of daryl rentoria