

For FormLabs Printers

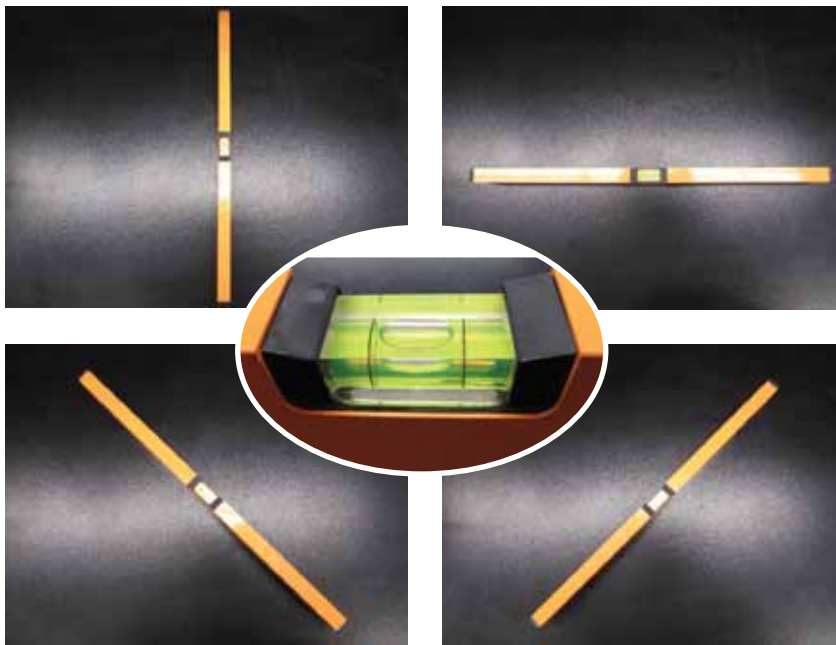
VAT PDMS Recoat

Material & Tools Needed

- SYLGARD 184 base
- SYLGARD 184 agent
- Ethyl alcohol
- IPA
- Dust blower
- Lens tissue
- Flat working place / Leveling tool
- Flat spatula
- Clean gloves
- Mixer or Electric mixer
- Oven

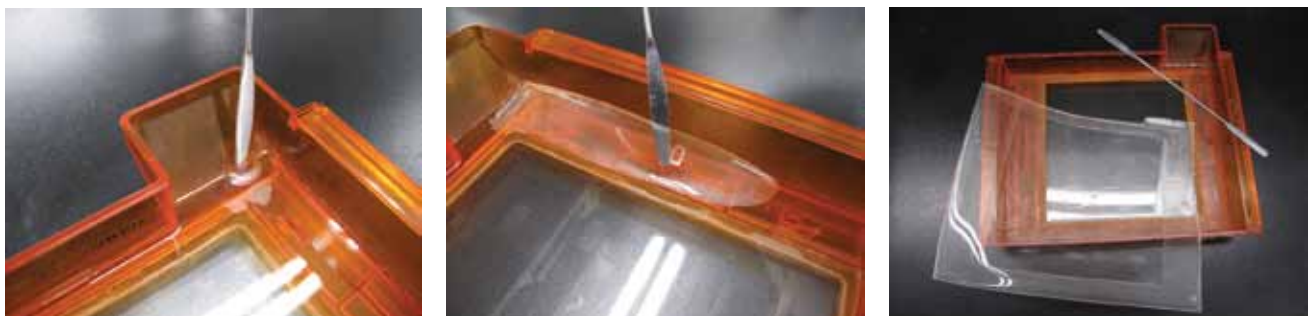
Do not recoat VAT with damaged acrylic walls, high risk of bubbling, detached PDMS and leakage. Please follow instructions closely for best results.

Step 1 : Leveled Working Table



Step 2 : Remove PDMS from VAT

- Avoid scratching the acrylic box's walls, **Caution!**
- Upper-right corner is best place to start the detaching
- Avoid touching optic window, wear gloves to avoid contamination



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Step 3 : Optical Window Cleaning – VAT bottom

- Use lens tissue to avoid fiber contamination
- Use **ethyl alcohol** (NOT IPA) with lens tissue only to clean if necessary (make sure after cleaning, it does not leave any streaks!)
- Use dust blower to remove dust



<https://www.kcprofessional.com/products/wipers/specialty-wipers/05511>

Step 4 : Sylgard 184 Mix

- Form2 VAT: 105g base, 10.5g curing agent
- Form1+ VAT: 68g base, 6.8g curing agent
- Use handheld whisk or electric mixer to mix evenly (500rpm, 3 minutes, in below example)



SYLGARD184 base



SYLGARD184 agent



500rpm, 3min

Step 5 : Sylgard Curing

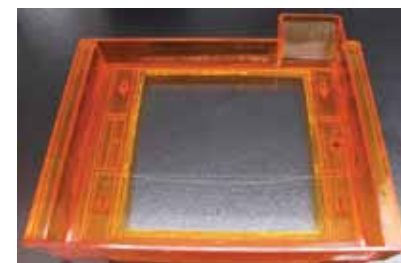
- Pour mixed Sylgard into vat (scrape in all Sylgard mix as much as possible, it relates to the thickness of the coating)
- Cover VAT, leave leveled for 18 hours, room temperature between 68-78°F (after 18 hours of setting, Sylgard coating is solidified and free of bubbles)
- Preheat oven to 160°F bake VAT for 2 hours for optimal performance
- Ready for printing



*68~78°F
18 Hours*



*160°F,
2 hours*



Mark Free VAT