Comprehensive 3D Printer Settings for GuardPro Resin Across Popular Printer Models

Setting	Suggested Value	Notes
Layer Height	0.05 mm	A standard layer height that balances detail and print speed.
Bottom Layer Count	3-5 layers	Ensures strong adhesion to the build plate, critical for night guard.
Exposure Time (Normal Layer)	4-8 seconds	Normal exposure time for adequate curing.
Bottom Exposure Time	40-85 seconds	Longer exposure for bottom layers to ensure adhesion to the build plate.
Transition Layer Count	4-6 layers	Smooth transition from bottom layers to normal layers.
Transition Type	Linear or Custom	Linear transition works well for consistent layer bonding.
Transition Time Decrement	3-5 seconds	Gradual decrement for smooth layer transitions.
Rest Time Before Lift	0.5-1 second	Ensures that the layer is fully cured before lifting.
Rest Time After Lift	0.5-1 second	Helps ensure good adhesion after lifting.
Rest Time After Retract	1 second	Prevents stringing and ensures clean retracts.
Bottom Lift Distance	5-7 mm	Higher lift distances avoid sticking to the build plate.
Lifting Distance	5-7 mm	Similar to bottom lift, ensures separation from the build plate.
Bottom Retract Distance	4-6 mm	Helps avoid resin contamination from the vat.
Retract Distance	4-6 mm	Prevents resin leakage during movement.
Bottom Lift Speed	90-150 mm/min	Slower speeds for better adhesion during the first layers.
Lifting Speed	90-150 mm/min	Slower lifting speeds help with detail accuracy.
Bottom Retract Speed	200 mm/min	Retract speed affects resin leakage; should be moderate.
Retract Speed	200 mm/min	Similar to bottom retract, this controls resin flow during movement.

Specific Recommendations for Popular Printers

1. Anycubic Printers

- Anycubic Photon D2, Photon M3, M3 Max, M3 Plus, Mono X, etc.
- Settings for GuardPro Resin will generally align with the general guidelines above.
- For Anycubic printers, start with 8 bottom layers, 90-120s exposure time for bottom layers, and 7-8s for normal layers.
- Mono X: A common printer in this lineup, usually requires exposure times closer to 7s for normal layers and 90-100s for bottom layers.

2. Phrozen Printers

- Phrozen Shuffle 4K, Sonic Mega 8K, Sonic Mini 4K, etc.
- Settings will align similarly to other printers, though you may need to adjust for different screen resolutions.
- **Sonic Mega 8K:** You may need to use slightly shorter exposure times (7-8s for regular layers, 90-120s for bottom layers).

3. Elegoo Printers

- Mars 3 Pro, Saturn 2, Saturn 8K, etc.
- Elegoo printers also generally work well with **Night Guard resin** at around 8 bottom layers and 90-120s for bottom exposure, with regular exposure around 7-8s.
- Saturn 2 & Saturn 8K: These printers will need slightly longer exposure times for bottom layers.

4. Wanhao Printers

- Wanhao D8, D7, etc.
- Follow general settings, with bottom exposure times of 90-120s and 7-8s for normal layers.

5. Creality Printers

- Halot One, Halot One Plus, Halot Mage, etc.
- Halot printers are quite capable of printing flexible resins like Night Guard, so exposure times will align
 with the above ranges. Bottom exposure times should be in the 90-120s range.

6. Nova3D Printers

- Nova3D Bene 6, Whale 2, Whale 3 Pro, etc.
- For these printers, use the standard exposure times and bottom layer counts. Similar settings as those for Anycubic printers.

7. Peopoly Printers

- Peopoly Phenom L, Phenom Noir, etc.
- Follow the standard exposure time ranges and layer heights. **Peopoly** printers may have different screen resolutions, but the general approach for dental resins like **GuardPro Resin** is similar to other printers.

8. Zortrax Printers

Zortrax Inksspire

• Zortrax printers may require slightly different slicing software settings (Z-Suite), but the exposure and layer height settings should still follow the general guidelines.

Key Things to Remember:

- 1. **Resin Temperature:** Make sure the resin is within the recommended operating temperature (usually 20-25°C). If your resin is cold, it may not cure properly.
- 2. **Test Prints:** It's always a good idea to perform test prints and fine-tune settings based on the results. For dental products like night guards, achieving the right balance of strength and flexibility is essential.
- 3. **Curing Post-Print:** After printing, post-curing with UV light is crucial for optimal hardness and durability. Use the recommended curing times.

Conclusion:

While these general settings will work for most printers, it's always a good idea to consult specific printer manuals or resin profiles from the manufacturer for the **GuardPro Resin** for your exact model, as different screen sizes and resolutions can influence settings.

Let me know if you need more detailed guidance on any specific printer or resin!