

Parameter	Direct Drive	Bowden	Notes
RETRACTION SETTINGS 4 items			
Retraction distance	0.5–1.5mm	4–7mm	Increase by 0.5mm increments. Watch for grinding.
Retraction speed	25–45mm/s	40–60mm/s	Higher speed improves retraction. Check extruder limit.
Travel speed	150–200mm/s	120–180mm/s	Faster travel reduces time for ooze to accumulate.
Print temperature	Per TDS — reduce if stringing	Per TDS	Lower by 2–3°C at a time. Check for delamination.
MATERIAL-SPECIFIC ADJUSTMENTS 5 items			
PETG	Low retraction + fast travel	Low retraction + fast travel	Temperature reduction more effective than retraction.
TPU	0.2–0.8mm, 20–30mm/s	Not recommended	Never aggressive retraction — causes extruder buckling.
PLA	Standard settings	Standard settings	Strings easy to remove with brief heat gun pass.
Nylon	Low retraction, 0% cooling	Low retraction	Stringing = wet filament first. Dry before adjusting.
PC	Minimal retraction	Not recommended	Direct drive only. Dry filament is critical.
SLICER SETTINGS TO ENABLE 3 items			
Combing / avoid crossing perimeters	Enable	Enable	Routes travel inside infill — hides stringing from surface.
Wipe on retract	Enable	Enable	Wipes nozzle tip on retract to reduce residual ooze.

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Coasting	0.2–0.5mm	0.3–0.6mm	Stops extrusion slightly early before travel moves.