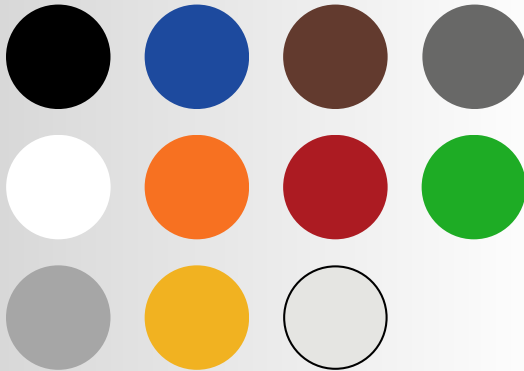




Technical Data Sheet

ABS+

Available colors



Product overview

Professional Lab ABS+ 3D printing filament is developed through extensive modification and optimization of traditional ABS materials, resulting in a comprehensive upgrade in performance. Compared with standard ABS materials, it offers superior mechanical properties, lower odor emissions, and reduced shrinkage, delivering a better 3D printing experience and more reliable printed objects.

Product features

Excellent Mechanical Properties: High strength and impact resistance. Printed parts are solid and durable, capable of withstanding significant external forces, making them suitable for applications requiring high mechanical strength.

Eco-friendly and Low Odor: With a low content of volatile organic compounds (VOCs), it emits minimal odor during printing, ensuring a comfortable printing environment and reducing potential health risks.

Low Shrinkage Rate: The shrinkage of Professional Lab ABS+ is significantly lower than that of traditional ABS materials, effectively minimizing the risk of warping and cracking. It ensures precise dimensions and clean appearance, improving both printing success rate and product quality.

Outstanding Printability: It retains the easy-printing characteristics of ABS. Thanks to optimized fluidity and thermal stability, it ensures smooth printing with reduced risk of nozzle clogging and can reproduce complex geometries and fine details accurately.

Printing Recommendations

- Nozzle temperature: 250°C
- Build surface material: PEI, glass
- Build surface treatment: glue
- Build plate temperature: 80 – 110°C
- Cooling fan: off
- Printing speed: 30 – 150 mm/s
- Raft separation distance: 0.2 mm
- Retraction distance: 7 mm
- Retraction speed: 20 mm/s
- Environmental temperature: room temperature – 60°C
- Threshold overhang angle: 60°

Based on a 0.4 mm nozzle. Printing conditions may vary with different nozzle diameters.

Drying recommendations

To ensure print quality, it is recommended to dry Professional Lab ABS+ filaments before use. Long exposure to humidity may negatively impact printing, causing defects such as bubbles or delamination. A professional filament dryer is recommended. If a dryer is unavailable, a household oven can be used with great care to avoid overheating and deformation.

Precautions

Shrinkage: Although Professional Lab ABS+ has a low shrinkage rate, thermal insulation is still necessary. It is advisable to print inside a closed printer chamber or use a heat cover around the build platform to reduce heat loss and warping.

Cooling Control: Due to the material's relatively low cooling performance, print settings should be adjusted as needed. If a cooling fan is used, its speed should be kept low to prevent uneven cooling. For models with large overhangs, reduce print speed or modify the model to lessen overhang angles for better results.

Filament Storage: Store in a dry, cool place, away from moisture and direct sunlight. Seal unused filament to avoid moisture absorption, which could impact future prints.

Printer Compatibility: Ensure your printer is compatible with Professional Lab ABS+ filament. Different printer brands and models may require different filament specs (e.g., nozzle diameter, feeding systems). Incompatibility may result in issues such as nozzle clogging or poor filament feeding.

Disclaimer of Liability

The typical values provided in this datasheet are for reference and comparison only. They should not be used as design specifications or for quality control. Actual values may vary depending on print conditions. The performance of printed parts depends not only on the material but also on design, environment, and print parameters.

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