

SLA Photopolymer Resin Bottles

DT Workshop Equipment Reference — D&T / STEM resource for school workshops | Consumables & Spares



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SLA photopolymer resin is the liquid plastic that resin 3D printers cure with UV light, sold in bottles in standard, tough, flexible and castable types with colours from clear to grey. It produces detailed, smooth parts but needs careful handling and storage.

Key Features

- Bottle sizes 500 ml and 1 kg typical
- Standard, tough and flexible types
- Colours: clear, grey, black, white
- UV-curable at 395-405 nm
- Shelf life about 18 months unopened

Typical Uses in the Workshop

- Print detailed prototypes and models
- Make masters for casting jewellery
- Produce flexible or tough functional parts
- Print dental and engineering study models

Safe Operation

1. Shake the bottle well before pouring
2. Filter the resin into the vat
3. Print with supports and orientation planned
4. Wash prints in IPA after printing
5. Cure under UV for the recommended time

SAFETY NOTES

- Wear nitrile gloves - uncured resin irritates skin
- Work in a ventilated area
- Keep resin away from food, sinks and children
- Dispose of resin waste correctly
- Store bottles sealed, upright and out of sunlight

Maintenance & Consumables

- Keep the vat filtered and clean
- Store resin at room temperature
- Check the FEP film for wear
- Clean spills immediately with IPA
- Track bottle dates and stock

Specification & Buying Notes

Buy resin in the standard and tough types for class use; keep bottle sizes small enough to use fresh. Quality resin prints cleaner and cures harder. Check the printer's wavelength compatibility.