

Glues

for plastic modelling

Types of Glues

- Liquid cement
- Tube cement
- CA glues
- Epoxy
- White glues
- Specialty glues

Liquid Cement

Different viscosities available:

- Extra-thin
- Regular (has 'resin' in formula)

'Extra-thin' is typically either:

- MEK (Methyl-ethyl ketone)
- DCM (Dichloromethane, Methylene chloride)

Creates "weld" by melting styrene together

PROs

- Easy to apply
- Extra-thin cement pulled by capillary action
- Low residue
- Low odour (relative)
- Quick bonding
- Strong welded joints
- Build-in application brushes (some)
- Delivery systems available
- Readily available at hobby stores



CONs

- Only for styrene-to-styrene bonding
- Melts plastic if accidentally spilled
- Quick evaporation, even through bottle caps
- Poisonous

Tube Cement

(aka “polystyrene cement”)

(aka “old-style, smelly tube cement”)

Creates bond by softening/dissolving plastic at the joint...
creates partial weld & surface bonding



PROs

- Slow drying
- Easy to precisely apply small drops
- Low-odour variants available

CONs

- Declining popularity over the years
- Thick
- Stringy
- VERY smelly
- Toxic

CA Glue

Cyanoacrylate

aka “Super glue” or “Krazy Glue”

PROs

- Different viscosities available
 - Thick (gap filling)
 - Medium
 - Super-thin
- Very Strong surface bonding
- Very tough when cured
- Good for bonding hard materials
- Very good for bonding metal-plastic
- Can be strengthened by “fillers”
- Accelerator & debonder available
- Lifespan can be prolonged by refrigeration
- Widely available



CONS

- Requires careful use
- Will cause permanent injury to eyes
- Bonds skin easily
- Thin CA is very runny
- Bottle nozzles clog
- Exothermic reaction (heat generating)
- Fumes

Epoxy Glue

2-part glue

- Resin
- Hardener



PROs

- Bonds many different materials
- Very strong when cured
- Different hardening times available
- Double-syringe dispensers – easier mixing
- JB Weld – epoxy metal repair
- Widely available

CONs

- Messy
- Must be mixed at (near 1:1) ratio

White Glue

PROs

- Easy to apply
- Dries clear
- Low odour
- No fumes
- Easy clean-up
- Non-toxic (usually)
- Different strengths available
- Widely available



CONs

- Light-medium surface bonding

Specialty Glues

- General purpose
 - Gorilla Glue
- Affixing PE
 - Gator Grip Glue
- Affixing clear parts
 - G-S Hypo Cement
 - Micro Kristal Klear
- UV-curing
 - Bondic™



Reference

There are many good sources for information on hobby-use glues, including:

Scale Model Guide

<http://www.scalemodelguide.com/construction/materials/learn-glue/>