

Design & Technology

AQA A-Level

The use of adhesives and fixings

Materials required for questions

- Pencil
- Rubber
- Calculator

Instructions

- Use black ink or ball-point pen
- Try answer all questions
- Use the space provided to answer questions
- Calculators can be used if necessary
- For the multiple choice questions, circle your answer

Advice

- Marks for each question are in brackets
- Read each question fully
- Try to answer every question
- Don't spend too much time on one question

Good luck!

Q1. Which adhesive requires clamping while drying and is commonly used for wood joints?

- A** UV hardening adhesive
- B** PVA
- C** Epoxy resin

Q2. What type of adhesive creates an instant bond when two coated surfaces are pressed together?

- A** Solvent cement
- B** Contact adhesive
- C** Epoxy resin

Q3. Which adhesive cures when exposed to ultraviolet light?

- A** PVA
- B** UV hardening adhesive
- C** Tensol cement

Q4. What is a key disadvantage of using solvent cements like Tensol?

- A** Long curing time
- B** Emission of harmful fumes
- C** Weak bond on plastics

Q5. State a specific application for a UV hardening adhesive. Give two reasons why it is suitable for the application you have named **(3 marks)**

Application

Reason 1

Reason 2

Answers

Q1. B

Q2. B

Q3. B

Q4. B

Q5.

Possible reasons depend on the application, but the list below gives a range.

- Reduced curing times.
- One part adhesive removing risk of mixing ratio errors.
- Joints can be tested for strength with fluorescent light (nondestructive).
- Transparent adhesive improving aesthetics.
- Solvent free adhesives for Health and Safety.
- Only sets when exposed to UV light source so excess can be cleaned away easily prior to exposure.