What is soldering?

Goldsmithing Techniques · https://www.purejewels.com/faqs/goldsmithing-techniques/what-is-soldering/

In the world of fine jewellery, beauty is forged not only through design but through **precision, heat, and skill**. One essential technique behind the creation of many exquisite pieces is **soldering**.

At **PureJewels**, where tradition meets technical mastery, we believe understanding how your jewellery is made adds deeper value to what you wear. So let us take you behind the bench and explain: *What is soldering, and why does it matter in jewellery?*

Soldering Defined: The Art of Joining with Heat

Soldering is a **metalworking technique** used to **join two or more metal components** together using a filler metal (called **solder**), which has a **lower melting point than the base metals**.

In jewellery, soldering is used to:

- Attach clasps to chains
- Fix broken or cut sections of metal
- Build intricate designs like filigree
- Assemble multi-part components, such as rings or bangles

Unlike welding, soldering does **not melt the base metal**, preserving its structure while securely joining elements together.

How Does Jewellery Soldering Work?

The process involves several key steps:

1. **Preparation**: The jeweller cleans and aligns the metal pieces to be joined.
2. **Application of Flux**: A chemical flux is applied to prevent oxidation during heating.
3. **Solder Placement**: Small pieces of solder are positioned at the joint.
4. **Controlled Heating**: A precision torch is used to melt the solder, allowing it to flow into the joint by capillary action.

5. **Cooling & Cleaning**: Once cooled, the piece is cleaned (often in a solution) to remove residue.

When done well, a soldered joint is **strong, seamless, and nearly invisible**.

Types of Soldering in Jewellery

There are different levels of solder depending on the temperature:

- **Hard solder**: Used for initial joins; has a high melting point.
- **Medium solder**: Used in mid-stage assembly.
- **Easy solder**: Used for final touches and repairs.

At **PureJewels**, our expert goldsmiths use **22ct-compatible solder** to maintain the integrity, colour, and purity of each piece we create or restore.

Why is Soldering Important in Jewellery?

- **Precision Assembly**: Enables intricate, multi-part designs
- **Repair Work**: Essential for resizing rings or fixing broken chains
- **Secure Connections**: Ensures clasps, hinges, and settings stay strong
- **Creative Freedom**: Allows designers to push boundaries with structure and form

Soldering and Gold Purity

A common concern is whether solder affects the gold's purity. At **PureJewels**, we use **hallmark-approved solders** compatible with **22ct and 18ct gold**, ensuring your jewellery maintains its purity and finish.

Each finished piece is **hallmarked by the London Assay Office**, confirming both metal content and craftsmanship.

Final Thoughts: A Seamless Bond

Soldering may seem invisible, but it plays a crucial role in the **strength, design, and longevity** of your jewellery. It is the quiet technique behind lasting beauty, a marriage of **heat, technique, and intention**.

At **PureJewels**, we honour this tradition with every piece we craft or restore, because **true luxury lies in the details you don't see, but feel over time.**

FAQs

Q: Is soldering permanent?

Yes, soldering creates a permanent bond between metal parts. In jewellery, it’s made to last — but it can also be reversed or repaired by skilled artisans if needed.

Q: Does soldering reduce gold value?

No, when done professionally with matching solder and hallmarked correctly, it preserves the gold’s value and purity.

Q: Can soldering fix broken gold jewellery?

Absolutely. Soldering is commonly used in jewellery repairs to mend breaks, cracks, or to resize rings and bracelets.