What is annealing?

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

Jewellery may look delicate, but behind its beauty lies a world of **fire, transformation, and precision**. Among the quiet yet powerful techniques in goldsmithing is **annealing**, a process that breathes flexibility back into metal.

At **PureJewels**, where we blend traditional craftsmanship with modern artistry, **annealing** plays a vital role in shaping gold and preserving its integrity throughout the making process.

Annealing Defined: The Science of Softening Metal

Annealing is a **heat treatment process** used to **soften metal**, making it more **workable, flexible, and less prone to cracking** during forming or shaping.

In jewellery, annealing is essential when working with gold, silver, or platinum, especially during **forging, bending, rolling, or stone setting**, when the metal is repeatedly stressed.

Why Do Jewellers Anneal Metal?

When metal is shaped, bent, or hammered, it becomes **work-hardened**, meaning it stiffens and can become brittle. To restore its **malleability**, the metal is heated (annealed), allowed to cool, and becomes **soft and ductile** again.

Without annealing, jewellery components like bangles, ring bands, and intricate settings would be far more difficult to form without risk of breakage.

How Does Annealing Work in Jewellery Making?

1. **Heating**: The metal is gently heated using a torch or kiln to a specific temperature (below its melting point).
2. **Soaking**: It’s held at that temperature to allow internal stresses to release.
3. **Cooling**: The piece is cooled slowly (or sometimes quenched in water), depending on the metal type.

The result is a piece of metal that is **easier to shape**, polish, or solder, ready for the next stage of craftsmanship.

Annealing and Gold Purity

Higher purity gold (like **22ct**) is naturally more malleable than 18ct or 14ct. However, even **22ct gold** may be annealed during detailed handcrafting, especially in techniques like **die stamping, hand engraving, or filigree work**, which PureJewels is proud to offer in our artisan collections.

When is Annealing Used?

- **During ring resizing or shaping**
- **When forming bangles or chains**
- **In forging and hand-fabrication**
- **Between stages of hammering or rolling**
- **To prepare settings for gemstones**

Is Annealing Visible in the Final Piece?

No, **annealing is an invisible process**, but its results are deeply felt. It enables the precision, polish, and softness of curves that make fine jewellery comfortable to wear and a joy to behold.

Final Thoughts: Strength Through Fire

In many ways, **annealing is symbolic** of the jewellery journey itself: **strength gained through softening, and transformation through care and heat**.

At **PureJewels**, we use annealing not just as a technical step, but as part of our devotion to craftsmanship, ensuring that each piece, whether cast, forged, or hand-formed, is as graceful in structure as it is in design.