

HOW DO YOU DRILL HOLES IN POLYMER CLAY BEADS WITHOUT DEFORMING THEM?

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Drilling is often the most dreaded step in making polymer clay beads: one wrong move, and the bead can become oval-shaped, crack, or lose its original shape. Good news: with the right method and the right tools, you can create a clean hole without distortion, whether you drill before or after firing. We'll walk you through both approaches, their advantages, and the mistakes that most commonly damage beads.

Why do beads deform when drilled?

An unfired polymer clay bead remains flexible, even after being refrigerated. It deforms as soon as pressure is applied to it. There are three common causes:

- a needle that's too thick or too flexible, which pushes the material aside instead of passing cleanly through it,
- a lever-like motion once the needle is inserted, which causes the hole to become oval-shaped,
- a clay that's too soft (such as Sculpey III), which is more prone to crushing... but also to microcracks if pierced after baking without taking precautions.

Drilling Before Baking: The Fine-Needle Technique

This is the most common method for drilling holes in raw polymer clay beads, provided you follow a few rules:

- Use a fine needle (bead-piercing needles are designed for this purpose).
- Push the needle in while gently rotating it back and forth, without any sudden movements.
- Avoid the "half on one side, half on the other" method without a tactile guide: the alignment of the two holes is almost always imperfect.
- Chilling the clay in the refrigerator for 10 to 15 minutes before piercing will firm it up slightly, except for very pliable clays (such as Sculpey III), where this may not be enough.

An ultra-fine needle leaves a clean pilot hole, which you can enlarge after firing to the desired diameter.

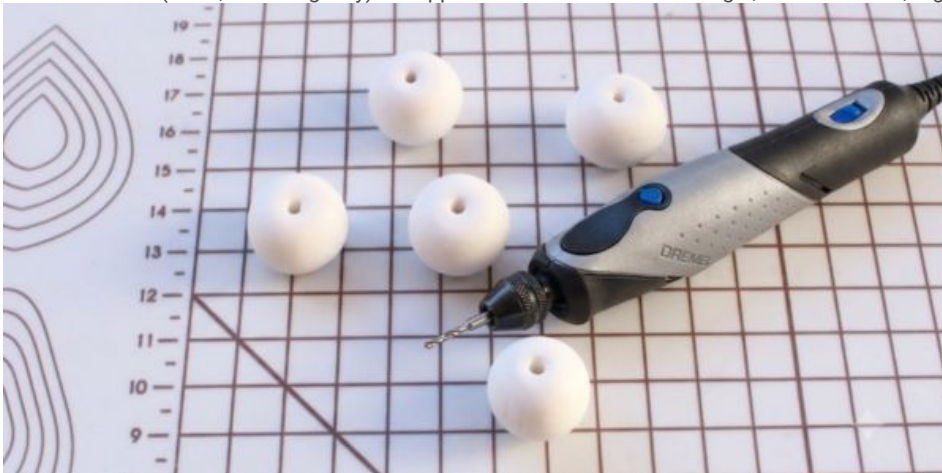


Some artists also recommend keeping a finger pressed against the intended exit point. As soon as you feel the tip pierce slightly through to the other side, stop pushing from the entry point and finish the hole by rotating the needle from this exit point.

Drilling After Firing

Drilling the bead after firing is the best way to eliminate the risk of deformation, since the clay is already hardened. However, it requires a few more tools:

- A Dremel-type tool (the Dremel Stylo+ works well for small pieces) fitted with a fine drill bit. If you don't have one, you can also use a hand drill.
- A set of jewelry-making drill bits ranging from 0.8 to 3 mm, for drilling into baked polymer clay or enlarging an existing hole.
- A slow rotation speed to prevent overheating and cracking, especially with fragile polymer clays.
- A soft surface (foam, modeling clay) to support the bead without marking it, and take short, regular breaks to remove drilling debris.



Good to know: If you left a guide hole before baking, this step simply involves enlarging it—ensuring precise alignment and zero distortion.

Result

