

# Crushed Stone — Chip Inlay

## Definition:

To create chip inlay, jewelry pieces with cavities are filled with crushed stone and resin. After hardening, the inlaid surface is ground flat and polished.

## Equipment and Materials Needed:

- Cast or fabricated jewelry components with cavities at least 1/16" deep
- A resin filler such as Epoxy 330
- Crushed stone such as turquoise, coral, jet, mother-of-pearl or any other material of suitable color or hardness
- Grinding/sanding equipment with water cooling
- Polishing equipment such as a Rio Polisher (a 3450rpm motor with a tapered spindle) or a hand grinder

## Procedure:

Thoroughly mix the resin according to the manufacturer's instructions. Once mixing is complete, add enough crushed material to form a fairly compact mass.

Fill the cavity, packing the material into it with a pointed tool to ensure a complete fill and remove air bubbles. The material should be mounded above the top edge of the cavity. Set aside in an upright position for the recommended setting time.

After setting time is complete, make sure the epoxy resin is fully cured (hard). Once the epoxy is hard, begin sanding.

**Please Note:** Always use water during sanding to cool the inlay material and prevent heat damage.

On expandable drums, a 220-grit belt and a 400-grit belt are recommended. Use the 220-grit belt to sand down almost to the top of the cavity. Then use the 400-grit belt to sand down level with the top edge of the cavity.

When sanding is complete, the metal should show cleanly all around the cavity. If you're using a hand grinder, medium and fine sanding drums are recommended.

Polish the piece with a fairly hard, felt buff and Zam. This gives the inlaid surface a high lustre and prevents undercutting.

At this point, any other surfaces of the piece may be sanded and/or polished in the normal manner. For tumble finishing, silicon carbide media is suggested.



*Inlay with loose chips of stone.*

*This finished sterling arrowhead is shown inlaid with turquoise.*



*Mix stone chips with an epoxy resin such as Epoxy 330.*



*Use a Rio Polisher for grinding and polishing inlay.*



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