Jett Sett Instructions

The Setting, Engraving & Tool Customization Advantage!
Congratulations on your purchase of Jett Sett—you’ll find so many uses for this plastic/ceramic fixturing material, you’ll wonder how you ever worked without it! Jett Sett is a unique combination of thermoplastic and ceramic that’s non-toxic and biodegradable. It comes as a hard, white pelletized material for easy distribution. It’s easy to work with Jett Sett—all that’s required is hot water to soften this malleable material.

⚠️ Caution! Jett Sett is flammable. Do not use a torch or flame to heat the material. Always use caution when handling the hot container, the water and the Jett Sett material. Never use a microwave oven to heat Jett Sett.

What Is So Great About Jett Sett?
Every day and in every use, Jett Sett shows its superiority over other fixturing materials.

- Jett Sett is a great alternative to shellac or common thermoplastic fixturing material because it sets up faster and is removed much more quickly and cleanly. No solvents or harmful chemicals are required.
- Common formulations of thermoplastic fixturing materials take longer to prepare, work, cool and set, and can shrink as they cool. Jett Sett doesn’t shrink.
- The superior formula makes Jett Sett reusable indefinitely—without loss of material. Once heated to a pliable state, Jett Sett has a working time of about 1–2 minutes. The working time can be extended with a quick dip in warm water.
- Jett Sett is so hard when cooled that it does not chip or break even under the most extreme setting pressures. Jett Sett can even be formed into specialty hammer head shapes for dapping work.
- Jett Sett is stronger and more durable once cooled than common formulations of thermoplastic.
- Jett Sett is completely customizable: it can be flattened, rolled or shaped to fit any part, no matter how irregular.
- No special tools are needed and no expert knowledge is required.
- Jett Sett adheres to itself but not to metal parts or clamps. It can be used in combination with practically all of your existing tools and clamps without scratching metal, but will hold parts firmly and securely in place.
- Once fully cooled, Jett Sett can be clamped into engraving blocks without chance of damaging the thin or fragile parts held in the fixture.
- Jett Sett requires no machining, but can be modified once cool using coarse files or wax burs. ⚠️ Caution! Wear a dust mask while filing or shaping dry Jett Sett.

A Few of the Many Ways You Can Use Jett Sett:
- Create traditional fixturing devices for components in setting and engraving applications
- Create custom mill beds and fixtures for uniquely shaped parts for CNC milling of metal, wax or plastic.
- Quickly and economically create fixtures for hydraulic die forming. Jett Sett withstands several tons of pressure without cracking or crumbling.
- Make pliers tip covers for no-mar work; ergonomic custom file and graver handles; and customized hammer heads and stakes.
- Snap parts in and out of Jett Sett material in patented Jett Sett fixturing tools without any additional heating or cooling steps.
- Model-making molds for Precious Metal Clay (PMC).
How to Prepare Jett Sett for Use
Place a desired amount of Jett Sett material in hot water to become pliable. Since Jett Sett is a thermoplastic it will not absorb water; hot water serves as an excellent and simple method for evenly transferring heat to the Jett Sett material, so that it's fully pliable.

1. Heat water to a temperature of 150°F to 165°F. Do not overheat the Jett Sett material by exposing it to water temperatures over 180°F, or leaving Jett Sett immersed in hot water for extended periods. It may lose some of its desirable characteristics and unique attributes when worked. A small crock pot is ideal for maintaining correct water temperature throughout the day, making it easy and convenient to heat and re-heat pieces of Jett Sett material as you need it. Do not use a microwave. Use a thermometer to identify the setting on your crock pot that best achieves and holds the desired temperature range. Please Note: Jett Sett should not be used for hot metals, or for molds for hot metals.

2. Pour the pellets into the heated water and allow the Jett Sett material to sit for a few minutes for the heat to transfer throughout the plastic.

3. Using a spoon or other utensil, form the Jett Sett into a single lump while it's still in the hot water. Remove the Jett Sett from the water with the utensil, then squeeze it into a solid mass with your hands (please use care; Jett Sett and the water will be hot).

4. If the material gets overheated it can become sticky. To help, spray the Jett Sett with silicone mold release and work it into the material (the mold release has no known affect on workability or properties of Jett Sett). Also, keeping your hands moisturized with a regular lotion will help.

Jett Sett is malleable after being heated and formed into a solid workable mass.

Using Jett Sett
- Once the Jett Sett is soft, quickly shape it into the form you need, or press your parts just enough to hold them firmly. It's better to move Jett Sett material up and around your parts with your fingers or a tool rather than bury them too deeply in a thick piece of Jett Sett. This makes it easier to snap your parts in and out by flexing the fixturing material.
- It is possible through practice to make a Jett Sett fixture that your parts will snap in and out of without re-heating the material. This is ideal for performing tasks on production pieces.
- If you're creating handle, place the tool you want to secure in the Jett Sett and press the material around the tool to create a handle.
- When holding settings, you can use a blunt instrument to push the Jett Sett down from underneath the settings, clearing a path for the bottom of the stones.
- Keep working surfaces wet to prevent the Jett Sett material from sticking: Jett Sett will adhere to itself wet or dry.
- You can dip the form you've created into cold water for a minute or so to speed cooling and to help Jett Sett retain the shape.
- After cooling, you can cut away excess material with wax burs or blades. Caution! Wear a dust mask while filing or shaping dry Jett Sett.
- If extended working time is desired, elevate the temperature of the Jett Sett fixturing tools and/or parts to be fixtured by dipping them in hot water.
- When you have created fixtures that you want to keep and reuse, number the fixtures and keep them for the next production run on that component.
- Jett Sett material that has been heated and unused should be stored in thin, flat pieces for easy re-heating and re-using.
**Beadblasting & Sandblasting**

Jett Sett can be used to quickly and effectively shield or mask parts during sandblasting or glass beadblasting operations.

- Shields can be made for one or multiple parts to be blasted at a time. It is very useful to blast only the necessary areas of a multi-link bracelet at the same time. You can make stencil fixtures that can be used over and over again with little effect from the sand or glass blasting process.
- With a little practice, you can make a fixture that allows you to snap components in and out of without ever having to re-heat the Jett Sett. This makes quick work of production setting!
- No painting, no taping, no solvents! Jett Sett will not leave a residue on, or scratch or mar your components.
- Jett Sett can be cut with scissors or a blade when warm, or shaped with files and coarse-cut burs when cold.
- Jett Sett can be washed and used over and over again.

**Beadblasting & Sandblasting Tips:**

1. Line up several similar production components close together on a flat surface.
2. Take a warm sheet of Jett Sett approximately 3–5mm thick and press the plastic firmly over the top of the side-by-side components.
3. Be careful to fit Jett Sett tightly around all of the components.
4. Allow enough time for the plastic to cool about 90% and then remove the components from the back of the fixture.
5. When you remove the component you should see a very detailed impression of it. If not, rewarm the plastic and press again.
6. To create a stencil fixture, take a #11 straight surgical blade and, from the back of your Jett Sett stencil, carefully begin to trim out the areas of the impression you want to be exposed to the blasting process. As you’re perfecting your cutting skills, don’t worry if you cut too much or change your mind; you can re-warm the stencil and push a little of the Jett Sett back in place.
7. If you would rather work with cold Jett Sett fixturing material, you’ll need to use the same coarse burs as you’d use for wax carving (small-teeth burs cause heat build-up and will melt the plastic instead of cut it). ▲ **Caution!** Wear a dust mask while filing or shaping dry Jett Sett.
8. It is advisable to cut away the Jett Sett plastic in such a way as to create an angled funnel shape leading to the parts being textured for easy access of the blasting. As you perfect your Jett Sett cutting skills you can re-warm and reposition the Jett Sett as necessary.

For stone-setting, wire-forming, engraving, finishing, tool-holding and so many other fabrication tasks, Jett Sett works like no other fixturing material!
Making Custom Ergonomic Tool Handles

You can make comfortable, custom-fit handles for gravers and files with Jett Sett. It takes only a slight difference in how you prepare your graver or file tang to create the most ergonomically fit handles available!

For Gravers & Files:

1. Make a few small (1mm) grooves across the tang of your graver or file. Since Jett Sett material does not stick to metal, these grooves allow the Jett Sett to hold the graver by forming into them.

2. Heat enough Jett Sett material so that you can squeeze your hand closed over the handful. Exert enough pressure as you squeeze to form the Jett Sett material into a shape that feels comfortable in your hand. Make sure it’s a thick-enough mass that it will hold up when you insert the graver or file into it.

3. While holding the Jett Sett in your hand, insert the file tang or graver end into the material at an angle that will keep your wrist straight (ergonomic) or to your preferred angle when you’re holding and working with the tool.

- You can insert your graver much deeper into the Jett Sett custom handle than a traditional graver handle, allowing you to get more use from your tools.
- Customizing tools to your precise working angle with Jett Sett handles not only reduces fatigue, it improves work efficiency because it removes variance on the tool cutting angle when you’re picking up your tool for your operation.

- Workers in your shop will instantly know when they have their own tool or someone else’s. The Jett Sett handle is so custom-molded to the hand shape imprinted, it may not be comfortable to another. Of course, you can make non-conformed handles with Jett Sett as well. Just form a thick oval or rectangle and follow the steps above to insert the graver or file tang.

Use the same steps for forming custom tool handles (described at left) to create pliers tips that protect your metal from marring. Keep Jett Sett pliers tips at your bench and be ready to bend metal stock with no risk of damage!