



**Other Names for Fire Agate Synonyms:** Iridescent Agate and Rainbow Agate.

**Healing Properties:** A grounding stone that can take the edge off of emotionally charged problems.

**Astrology:** Sign of Aries. **Chakra:** 2nd Social Center. **Feng Shui:** Increases ones energy.

**Legends & Folklore:** Fire agate is found only in the American Southwest and Mexico and wasn't brought into commerce until after World War II. We have not found any legends or folklore attached to fire agate.

**Description:** Fire Agate is a layered stone with Goethite or Limonite inclusions, which cause the stone to be iridescent. The layers are small enough that when light entering them, forms interference colors known as "fire". The gem is thought to be formed when hot water saturated with colloidal silica and iron oxide invades cavities in rocks and begins to cool. Chalcedony with iron oxide begins to grow on any available surface (the iron oxide gives the basic brown color to the gem). As the solutions began to precipitate and grow layers of silica and iron oxide would be deposited depending on the relative level of those elements in solution and underlying conditions. These alternating silica and iron oxide layers (Schiller layers) cause the brilliant fire in the gem. As iron oxide ran out in the solution colorless chalcedony continued to grow, which is usually found formed around the outer surface of the agate.

As already mentioned, adjacent layers of iridescence exhibit different colors. They also can exhibit enormous differences in brightness. Before grinding the outline to finished shape, I usually spend a lot of time sanding the stone to perfection. Often, stones that showed only average color and brightness in the bronze and gold layers have been turned into extremely brilliant and valuable multicolored gems by having the patience to stick with the sanding. There is nothing more beautiful than having a dazzling green, purple and blue fire all mixed together in bright and beautiful highlights along with the reds, yellows and oranges. that you get with most fire agate.

Cutting Fire Agate essentially reverses nature's process by grinding and polishing away layers, following the natural contours, until only the fire is visible. As you might imagine, however, one layer too far and the stone is ruined.

**Directions for Cutting Fire Agate:**

Inspect the rough stone by wetting with water under a bright light. Direct sun light is ideal. (The American version of the stone is more fragile than it's Mexican cousin, so hold it over a padded surface so not to chip if it drops.)

Observe the depth and location of color layers. The gem material (fire layers) are usually covered by chalcedony. Trim away excess chalcedony by sawing, grinding, or sanding. Sawing should be used only for the top portion of chalcedony which has no color. Leave 1/8" inch for grinding.



For grinding, use a 100 grit wheel. Grind for not more than four of five seconds. Stop and examine for signs of fire under bright light. Shape the stone in any direction the fire indicates. Do not overheat the stone, keep wet at all times.

Remember — Grind slowly and inspect often! Be sure to use plenty of water. **Do not overheat.**

When you are satisfied that you have exposed all the fire, grind on a 600 grit wheel to eliminate scratches. Then start with 325 diamond paste, moving to 600, then 1200, 3000, and finally 50,000.