



Wet Polishing Guide for Petrified Wood, Opal, Agate and Other Gem Stones

Polishing Steps:

- 1 Cut or shape material to the desired surface or pattern using either a diamond blade or diamond cup wheel.
- 2 Using a clamping device, secure material to be polished to a proper work surface.
- 3 Remember, polishing is a process which takes time and requires that each grit size pad be used properly to achieve a quality finish.
- 4 Using the 50, 120, or 220 coarse grit pad, remove all rough scratches and cut marks. Smooth the surface as much as possible with these specific grit pads. The smoothing of the surface during this stage of polishing will determine the quality of the finish that will be achieved. After working the area, dry the surface to determine if all large scratches have been removed. Using a lumber crayon or pencil, mark the surface to determine the depth of the scratches remaining.
- 5 Once all large scratches have been sufficiently removed, the finer grit pads can be used to achieve the quality finish. The fine grit pads consist of 400, 800, 1800, and 3500. If more luster or color from the polished surface is desired, use the extremely fine 8500 grit pad.

After completing the polishing process, the following steps must be followed if a mirror finish is desired:

- Make a paste of cerium, aluminum or tin oxide using water.
- Apply paste to felt wheel.
- Run felt wheel with slight pressure against the surface to generate heat.
- After paste dries, polishing is complete.
- Wash surface with water and dry.

The surface should have a high luster or finish. If the surface appears to have small scratches, repeat step 5. In some cases it may be necessary to repeat steps 4 & 5.

Important Points in the Polishing Process:

- Barranca Diamond polishing pads are designed to be used solely with water to minimize the wear on the pads and prevent hazardous dust. (The use of water acts to cool the polishing pad material, flush away grindings, and eliminate hazardous dust). Always wear eye protection at all times.
- Never skip grit sizes during the polishing process. Skipping grit sizes will result in an unsatisfactory finish to the stone.
- Diamond polishing pads wear out prematurely due to overworking of the material or by not using a sufficient amount of water.
- Failure to spend adequate time polishing with each grit size pad will result in an unsatisfactory finish.
- Selection of the flexible rubber backer pad for shaping and curved work is highly recommended. Use the rigid backer pad for the straight edge and flat face material.
- Flat 4" 100 mesh wheel can be used to plane down uneven surfaces, remove stubborn scratches and knock off saw nubs.