



TIPS AND PROCEDURES

Aqua-Tool-Bond™

Tips

- True surfaces are critical for the bonding faces.
- Apply the glue evenly, either thin to both faces or thick on one (best only for very large pieces or those which are difficult to position). Use a brush for small surfaces (roughly 100 sq. in. or less) or a squeegee ([3M Application Squeegee](#) or similar) to cover larger surfaces.
- Work before material absorbs all glue – while there is still a glossy appearance to the surface (if necessary, rewet surface carefully, as the material will have softened).
- The best bond achieved by clamping or other means of applying force.
- Wipe any excess glue or runs as quickly as possible
- Although not necessary, we find that it helps to let bonded pieces to rest for 10-20 minutes prior to moving into a warm oven. This is to allow the glue to wick into the material.
- Do not allow any movement at the joint until the material has set. This will result in either a weak bond or no bond.
- We find that drying at 200F works well, but lower or higher temps present no problem. We have even bonded pieces at room temp, but this requires that parts sit far longer than if in an oven.
- Drying time varies depending on size and shape of mating surfaces (i.e. a 5"x5" mating surface can be fully workable in about an hour at 200F whereas a 2"x12.5" will be ready in 20 minutes). If the time is available, we try to leave all but the smallest of parts in the oven over night to ensure that the piece is thoroughly dry.

Step-by-Step

1. Prepare surfaces
2. Prepare fixturing/clamping method
3. Apply Aqua-tool-bond
4. Clamp sections together
5. Wipe runs
6. Wait 10-20 minutes
7. Move to oven/Turn oven on

For additional assistance, please contact Advanced Ceramics Manufacturing at 520.547.0850.

