

# Ceramic Adhesive Procedures

## PREPARATION

The surfaces to be adhered must be chemically clean. The adhesive is to flow over and into the tiny irregularity in the material. The adhesive is only going to bond to the surface it is in contact with so if the surface is contaminated then the adhesive will be attached to the contamination and not the material substrate. Most ceramic adhesives are water based so it is important that the surface be made wettable. Water beading on a waxed car is an example of a surface that is not wettable. Most of the ceramic adhesives have chemicals added to promote this wetting action and to minimize surface tension but cleaning the surface is still a must. We have found that an abrasive cleaner such as "AJAX" will scrub the surface clean and usually leave a wettable clean surface. Rinsing with clean water and a brush. This way the adhesive will be bonding to the base material for the strongest joint. The other surface preparation that may be necessary is whether the material is porous or water absorbing. If the surface is very absorbent then we recommend that it be wetted then wiped so there is no surface moisture. This will prevent the porous surface from wicking the moisture from the adhesive before it can flow properly. Very porous surfaces can actually wick away the adhesive binding system. If the surface is very porous then a dilute mixture of the adhesive may have to be painted on to act as a sealant.

## APPLICATION

The adhesive should be applied in a uniform thin coat to all surfaces. We recommend a scrubbing action with a brush etc. This mechanical action will help drive the adhesive into the surface irregularities to help it form many points of attachment. There is a **very important** step when the final placing of the adhesive coated parts is put together. It is very important that this be done in a uniform manner with just enough pressure for the adhesive to move out of the joint and flow together. **Do not use excessive force or multiple clamping** this actually will drive out the adhesive and when the pressure is removed air will enter the joint so there will be no bond formed at all. If you believe that this happened we recommend separating the joint, applying a small amount of additional adhesive then try again. Only if the adhesive is partially dry will it have to be removed and the surface prepared again.