

More About Machinable Alumina Silicate Ceramics

Sheets, Rods, and Square Bars

Common applications for this material include test blocks, high temperature insulators, and substrates.

Hardness:	Rockwell B: 73
Weather Resistance:	Not available.
Machinability:	Can be machined using carbide tools. If additional firing is done, diamond tools are needed.
Scratch Resistance:	Material is not scratch resistant. With additional firing, material becomes scratch resistant.
Chemical Resistance:	Chemical compatibility has not been tested. Do not use with alkalines and fluoride salts.
Firing Instructions:	Although firing is not required, it can be done after machining to increase flexural strength to 14,000 psi and compressive strength to 40,000 psi. Color will also change to pink. <ol style="list-style-type: none">1. Dry the ceramic after machining. Place the ceramic parts in a cool furnace, protecting the parts from any direct flame impingement.2. Bake the ceramic at 200° F for 2 hours in air to remove any moisture.3. Increase the temperature a maximum of 200° F per hour. Increase the temperature, if possible, at an even slower rate, especially for thicker sections, until the temperature reaches 1100° F. Hold the temperature at 1100° F for 6 hours. Thereafter, continue to raise the temperature at increments of 200° F per hour until the temperature reaches 2000° F.4. Hold the temperature at 2000° F for 30 minutes for each 1/4" thick section. For example, for a 1/2" thick piece, hold the temperature at 2000° F for 1 hour.

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