

3000°F CERAMIC FOAM

Machinable and Castable Low Expansion Ceramics

RESCOR 311 FOAM is composed of Alumina Silica Ceramic and withstands temperatures to 3000°F.

311 Ceramic Foam features low thermal expansion, high thermal shock resistance, low thermal conductivity and high thermal reflectance.

It is resistant to oxidizing and reducing atmospheres, molten metals, steam, corrosive gases, most acids, chemicals and solvents.

No organics. Will not out-gas in vacuum atmospheres.

1800°F, White Hot 311 Ceramic Foam parts can be immersed in water without cracking.

Rescor 311 is easily cut, sawed and drilled.

Larger shapes for high temperature applications are easily produced.

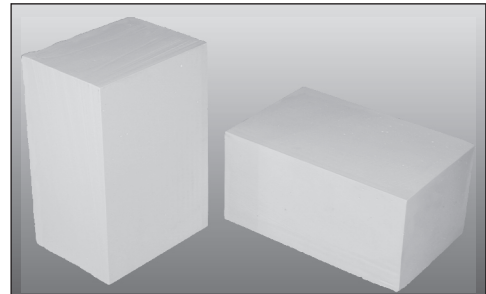
Just prime the surfaces with the 310 liquid hardener and join the surfaces with 310 adhesive.

These assemblies can then be machined to the final sizes and shapes.

Surfaces are rough with some porosity, sizes are nominal.

For machining instructions see page 73.

| RESCOR TYPE GRADE | 311 Insulating BLOCKS | 310LF Insulating POURABLE |
|---|-----------------------------|---------------------------------|
| Max Service Temp. °F | 3000 | 2500 |
| Density (# / ft ³) | 50 | 40 |
| Porosity % | 63 | 75 |
| Thermal Expansion (x10 ⁻⁶ /°F) | 0.3 | 3.3 |
| Thermal Conductivity* | 2.4 | 1.8 |
| Compressive Strength (psi) | 900 | 1250 ** |
| Modules of Rupture (psi) | 400 | 900 ** |
| Dielectric Constant (1MHz) | 2.17 | 1.95 |
| Loss Factor (1MHz) | 0.02 | 0.017 |
| Resistivity (ohm/ cm) | 10 ¹⁰ | 10 ⁸ |
| *BTU in / Hr °F Ft ² ** As Post Cured @1700°F | | |



RESCOR 311 Ceramic Blocks



Heating Element Holder Cast in 310LF

2500°F Castable and Machinable Ceramic

New 310 LF Ceramic Foam can easily cast shapes (close to the required part), be heat treated and then machined to form finely details parts.

Rescor 310 LF is a low cost, machinable alternative for High Temp. thermal and electrical insulators, heating element supports etc. NO more size limitations of preformed sheet and rod stock.

Just mix the 310LF ceramic powder with its activator and pour into suitable molds. (Molds should be designed with a shape close to the final required parts.)

Cure at room temp., de-mold and give the part a short heat treatment at 1500 - 1750°F.

| Cat. No. | Size |
|-----------------|------------------|
| 311-1 | 2.5" x 4.5" x 9" |
| 311-2 | 2 pack |
| 311-3 | 4 pack |

310LF will easily machine close tolerance, highly detailed parts.

Resistant to oxidizing and reducing atmospheres, molten non-ferrous metals, steam, most chemicals and solvents.

Applications Include high temperature electrical insulation, brazing, sintering fixtures, induction heating, hot pressing dies, processing boats, heating element supports, heat shields, radiant heating reflectors, chemical reactors, chemical filters, catalyst supports, microwave insulation and molded ceramic fiber component, etc.

| Cat. No. | Quantity |
|---------------------|---------------------|
| 310 LF- 1 | 10 Pound Kit |
| 310 LF- 2 | .50 Pound Kit |
| 310 LF- 3 | 100 Pound Kit |
| 310 - 5 | 310 Hardener/Primer |
| 310 - 7 | 310 Adhesive |



COTRONICS CORPORATION