

FUSED SILICA
HOT PRESS PLATENS
CASTABLE CERAMICS
FIRED SHAPES
AEROSPACE TOOLING

Foundry Service & Supplies, Inc.

11808 E. Burke Street, Santa Fe Springs, CA 90670
Telephone: (562) 945-6511
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HI-TEMP INSULATIONS
CALCIUM SILICATE BOARDS
MILLBOARD AND BLANKET
PAPERS AND CEMENTS
CUTTING AND FABRICATING

Cordierite

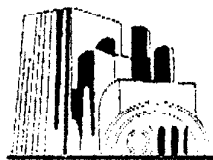
PRODUCT INFORMATION

F.S.S. has been manufacturing kiln furniture in California for nearly fifty years. During that time our products have become the standard of quality for the Western ceramic industry. Superior quality products are now shipped throughout North America and the world at competitive prices.

F.S.S. kiln furniture is manufactured using superior quality body formulations, well regulated production and quality control procedures, and an exceptionally long and tightly controlled firing cycle. These procedures result in a finished product composed of 50% cordierite and 35% mullite, with lesser amounts of corundum and other combined mineralogical forms. Glassy phase and uncombined minerals are found in very minor or trace amounts. This combination of high cordierite and high mullite yields excellent mechanical properties and remarkably high resistance to thermal shock.

F.S.S. kiln furniture is compatible with all makes and models of hobby and industrial kilns. We manufacture over 200 stock sizes in thicknesses of 1/4" to 1-1/2". Our 5/8" thick shelves are recommended up to cone 5, while our 1" thick shelves are used in the cone 5 to 10 range, often substituting for more costly silicon carbide or high alumina shelves at these temperatures.

F.S.S. experienced manufacturing and technical staffs are dedicated to meeting your needs for special designs, problem solving and on time deliveries. Our computerized inventory control system enables us to ship most orders within 7 days.



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TECHNICAL INFORMATION

The information below provides recommended operating conditions, physical properties, and chemical and mineral composition.

1. RECOMMENDED OPERATING CONDITIONS

A. Platforms

- Up to cone 5 5/8 inch thick shelf. The 1/2, 3/8, or 1/4 inch shelves can be used at low temperatures.
- Cone 5-10 1 inch thick shelf. Some users report that the 5/8 inch shelf works well in electric kilns to cone 10.
- Above cone 10 shelving is not normally recommended for use above cone 10. However, many users report excellent results when the shelf is flipped regularly.

B. Decking 1-1/2 inch thick decking tile is recommended.

C. Pusher Kilns P-1 pusher shelf is recommended.

2. PHYSICAL PROPERTIES

Maximum use Temperature	2350 deg F
Bulk Density	0.07 lb/cu in 121 lb/cu ft
Cold Crush Strength	30,000 lb/sq in
Modulus of Rupture	1600 lb/sq in
Coeff. Linear Thermal Expansion	2.8×10^{-6}

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Cordierite (cont.)

3. CHEMICAL ANALYSIS

SiO ₂	60.75%	CaO	0.29%
Al ₂ O ₃	32.93%	MgO	1.78%
Fe ₂ O ₃	2.44%	Alk	0.59%
TiO ₂	1.18%		

4. MINERAL COMPOSITION

Cordierite Approx. 50%

Mullite Approx. 35%

Corundum and other converted minerals make up the balance.

Glassy phase and unconverted minerals present in trace amounts only.

Figures confirmed by X-Ray analysis of two independent laboratories.