

# How to... Select the right shelves for your kiln.

Selecting the right kiln shelves for your particular use and application is important. As with virtually any product, you can overspend on your kiln furniture or you can "cut corners" and end up with shelves which last for only a few firings. When deciding on shelves you will have two important choices: (1) the material from which the shelves are made, and (2) the thickness of the actual shelf. The price difference between a 5/8" and a 3/4" shelf is minimal, but the price difference between a cordierite shelf and a silicon carbide or nitride bonded shelf is significant.

In order to make the right buying decision, consider:

1. The temperature at which you will be firing.
2. Your kiln atmosphere (reduction or oxidation).
3. Frequency of firing.

Kiln Shelf Buying Guide			
Firing Temperature	Kiln Atmosphere	Shelf Composition	Shelf Thickness
Cone 06	Oxidation	Cordierite	1/2" or 5/8"
Cone 1	Oxidation	Cordierite	5/8" or 3/4"
Cone 5	Oxidation	Cordierite	3/4" or 1"
	Reduction	Cordierite	3/4" or 1"
	Reduction	Silicon Carbide*	5/8" or 3/4"
	Oxidation or Reduction	Nitride Bonded*	.394" or .5"
Cone 10	Oxidation	Cordierite	1"
	Reduction	Cordierite	1"
	Reduction	Silicon Carbide*	5/8" or 3/4"
	Oxidation or Reduction	Nitride Bonded*	.394" or .5"

Other refractories such as high alumina shelves are available on a special order basis. The cost is significantly higher than the silicon carbide shelves listed above.

\*When choosing Silicon Carbide and Nitride Bonded shelf thickness, shelf span and weight of ware is a much more significant factor than firing temperature.