

Kiln Furniture – Quick Comparisons Chart



	Cordierite Mullite (CM)	Perforated (Cordierite Mullite)	Hollow (Cordierite Mullite)	SSiC (Sintered Silicon Carbide)	OBSiC (Oxygen Bonded Silicon Carbide)	NBSiC (Nitrogen Bonded Silicon Carbide)	RSiC (Recrystallized Silicon Carbide)
Description	A low-expansion magnesium-aluminium-silicate refractory formed by heating a mixture of talc, clay, and mullite to about 1350°C	As per CM but has multiple holes punched out of the shelf, reducing its weight & thermal mass.	As per CM but is thicker and has hollow tubes within the shelf, reducing its weight & thermal mass.	Super thin compared to other materials and provides a high-performance, light-weight kiln shelving system.	Including silicon carbide makes the shelves stronger and withstands higher temps. Can therefore be made thinner and as a result lighter. Also takes up less space in the kiln & a reduced thermal mass equals greater energy efficiency.		
General Usage	The new or infrequent home potter, where weight is not a concern	When large affordable shelves are needed but weight is an issue.	Where large shelves are required, and space is not an issue.	When light & thin shelves, to save maximum space is a priority	All potters, especially for Top Loading kilns where weight is a factor	Large volume potteries with big kilns & regular high temp firings.	Industrial applications that fire to very high temperatures.
Use in an Electric Kiln?	Yes	Yes	Yes	Yes	Yes (But will conduct electricity, if your kiln is old and doesn't have a cut-off switch when the door opens, turn the power off before loading & unloading)		
Use in a Gas Kiln?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Use in Raku Firing?	Yes	Yes	Yes	Yes	No	No	No
Max Working Temp	Cone 10 (1300°C)	Cone 10 (1300°C)	Cone 10 (1300°C)	1700°C	Cone 12 (1320°C)	Cone 23 (1580°C)	Cone 30 (1650°C)
Thickness	++++	+++	+++++	+	+++	++	+
Weight	heaviest	+++	+++	+	+++	++	lightest
Density g/cm ³	1.95	1.95	1.95	3.05	2.5	2.7	2.95
Energy to heat <small>Uses more energy to heat kiln.</small>	+++	++	++	+	++	+	+
Porosity	++++ (28%)	++++ (28%)	++++ (28%)	+ (1%)	+++ (25%)	+ (1%)	+++ (15%)
Kiln Wash	Yes	Yes	Yes	No	No alumina on 1 side	No	Yes ¹
Warping profile <small>(all will warp if working temp exceeded)</small>	Requires regular flipping at high temps	Requires regular flipping at high temps	Low	Very Low	Low	Very Low	Very Low
Can be cut to shape	Yes	Possible	No	No	No	No	No
Cracking risk	Absorbs moisture, turns to steam above 100°C & explodes) - if any doubt that shelves are bone dry, heat kiln slowly to 90°C and hold for 4 hours with bungs out.						
Value for Money <small>(For the lifetime of product for the average potter)</small>	Good	Excellent	Good	Excellent	Excellent	Good	Good
Cost	Least expensive	Approx 20% more than the cost of CM	Approx 20% more than the cost of CM	Approx double the cost of CM	Approx 20% more than the cost of CM	Approx triple the cost of CM	Approx triple the cost of CM

¹ Due to porosity, check with manufacturer as may come alumina impregnated.

This info is a guide only and based on best available information at time of creation. Always double check specifications with the manufacturer prior to purchase.