

FC HT BOARDS AND SHAPES

FC-HT Board products are manufactured in a wet vacuum forming process using a blend of alumino silicate and zirconia bulk fibers and binders, designed for use up to 2600° F (1427° C). **FC-Boards** are relatively lightweight, self supporting and easy to machine and cut. All boards are planed smooth on both sides with machined edges. FibreCast can easily customize these boards to have holes, grooves or notches machined with our CNC or Waterjet capabilities.

FC-Shapes use the same manufacturing process as FC Boards but using specialized tooling. FibreCast's inhouse mold making and 3D Printing capabilities can easily make custom shapes to customer specs, from Combustion Chambers to Fired Heater Door Frames and Peep Sight Blocks.



TECHNICAL COMPARISON

	FC-2600-HT		FC-2800-HD		FC-3000	
Colour	White		White		White	
Temperature Grade	2600° F (1427° C)		2800° F (1538° C)		3000° F (1649° C)	
Recommended Operating Temperature	2450° F (1343° C)		2600° F (1427° C)		2700° F (1482° C)	
Melting Point	3200° F (1760° C)		3200° F (1760° C)		3400° F (1871° C)	
Density pcf (kg/m3)	12 - 14 (192 - 244)		20 - 24 (320 - 384)		9 - 12 (144 - 192)	
MOR PSI Fired 24h @ 2100° F (1149° C)	110		125		55	
Thermal Conductivity	500° F/260° C	0.45 (0.065)	600° F/316° C	0.62 (0.089)	800° F/427° C	0.63 (0.091)
Temperature	1000° F/538° C	0.67 (0.097)	1000° F/538° C	0.89 (0.128)	1300° F/705° C	0.90 (0.129)
(Btu-in/hr ft2 ° F W/m.K)	1500° F/815° C	1.01 (0.146)	1400° F/760° C	1.32 (0.190)	1800° F/983° C	1.3 (0.187)
	2000° F/1093° C	1.49 (0.215)	1800° F/982° C	2.51 (0.362)	2300° F/1264° C	2.5 (0.361)
Shrinkage 24h @	2450° F/1343° C	1.5%	2450° F/1343° C	<1.5%	< 4 %	
Loss on Ignition	4 - 5%		4 - 5%		4 - 6 %	
Chemical Composition						
Al ₂ O ₃	53%		68%		71%	
SiO ₃	46%		31%		27%	
ZrO ₂	-		-		-	
Other	<1%		<1%		<1%	

Note: During the initial heat up of FC Boards and Shapes, a small amount of organic binder will start to burn out at approximately 450° F/232° C. Once this material has burned off, there will be no further off-gassing. Caution should be exercised during this period. Organic free products are available. The recommended operating temperature is determined by irreversible linear change, not the melting point. Store in a manner to minimize airborne dust. Data is based on results of tests conducted under standard conditions. Results are subject to variation. Results are presented as a guide only.

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