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## CALCIUM SILICATE BOARD INSULATION



Grade		UNIT	CC 100	CC 150	CC 350	CC 355	CC 450
<b>Crack Inhibitor</b>		N/Ap	Cordierite	Cordierite	Cordierite	Cordierite	None
<b>Bulk density</b>							
EN 1094-4		kg/m <sup>3</sup>	860	1040	1050	1070	950
(± 10%)		lbs/cu.ft.	54	65	66	67	59
<b>Open porosity</b>							
in acc. EN 1094-4		%	68	60	58	55	63
<b>Compressive strength</b>							
EN 1094-5		MPa	14	20	22	24	27
		lbs/sq.in.	2030	2900	3190	3480	3915
<b>Flexural strength</b>							
EN 12089		MPa	7	10	11	12	15
		lbs/sq.in.	1015	1450	1595	1740	2175
<b>Hardness</b>							
DIN 53505; Shore D			55	66	67	75	65
<b>Service temperature</b>							
		°C	1000	1000	1000	1000	1000
		°F	1832	1832	1832	1832	1832
<b>Shrinkage after 12 h</b>							
EN 1094-6		%					
Length-width / tickness							
@ 750°C (1382°F)			0,2/0,6	0,05/0,2	0,05/0,2	0,3/0,8	0,1/0,6
@ 1000°C (1832°F)			0,3/1,1	0,12/0,7	0,1/0,65	0,4/1,7	0,15/1,8
<b>Thermal conductivity</b>							
EN 993-14		W/(mK)					
@ 400°C			0.24	0.25	0.25	0.25	0.24
@ 600°C			0.25	0.27	0.27	0.27	0.25
@ 800°C			0.28	0.29	0.29	0.29	0.28
@ 752°F			1.66	1.73	1.73	1.73	1.66
@ 1112°F			1.73	1.87	1.87	1.87	1.73
@ 1472°F			1.73	2.01	1.87	1.87	1.94
<b>Coefficient of thermal expansion</b>							
@ 900°C (1652°F)		K <sup>-1</sup>	5,7x10 <sup>-6</sup>	5,0x10 <sup>-6</sup>	5,9x10 <sup>-6</sup>	5,9x10 <sup>-6</sup>	5,5x10 <sup>-6</sup>
		°F <sup>-1</sup>	3,2x10 <sup>-6</sup>	2,8x10 <sup>-6</sup>	3,3x10 <sup>-6</sup>	3,3x10 <sup>-6</sup>	3,1x10 <sup>-6</sup>
<b>Chemical composition</b>							
Calciumsilicat		%					96
CaO-; MgO-; Al <sub>2</sub> O <sub>3</sub> -silicates		%	97,5-98	97,5-98	97,5-98	94,5-96	
R <sub>x</sub> O <sub>x</sub> (R=Fe, Ti, K, Na)		%	1	1	1	1	1
<b>Loss on ignition (LOI)</b>							
		%	2-2,5	1-1,5	2-2,5	3-3,5	3

Above data is based on control test results. Individual test results may vary, therefore this data may not be used for specifications.

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