

Generic Heat Storage Capacity Knauf Comfortboard 23

Supplement to Product Data Sheet K763.de | Knauf Gips KG



Data set for thermal simulation including sensible heat capacity

Board characteristics for Knauf Comfortboard 23 | 12.5 mm

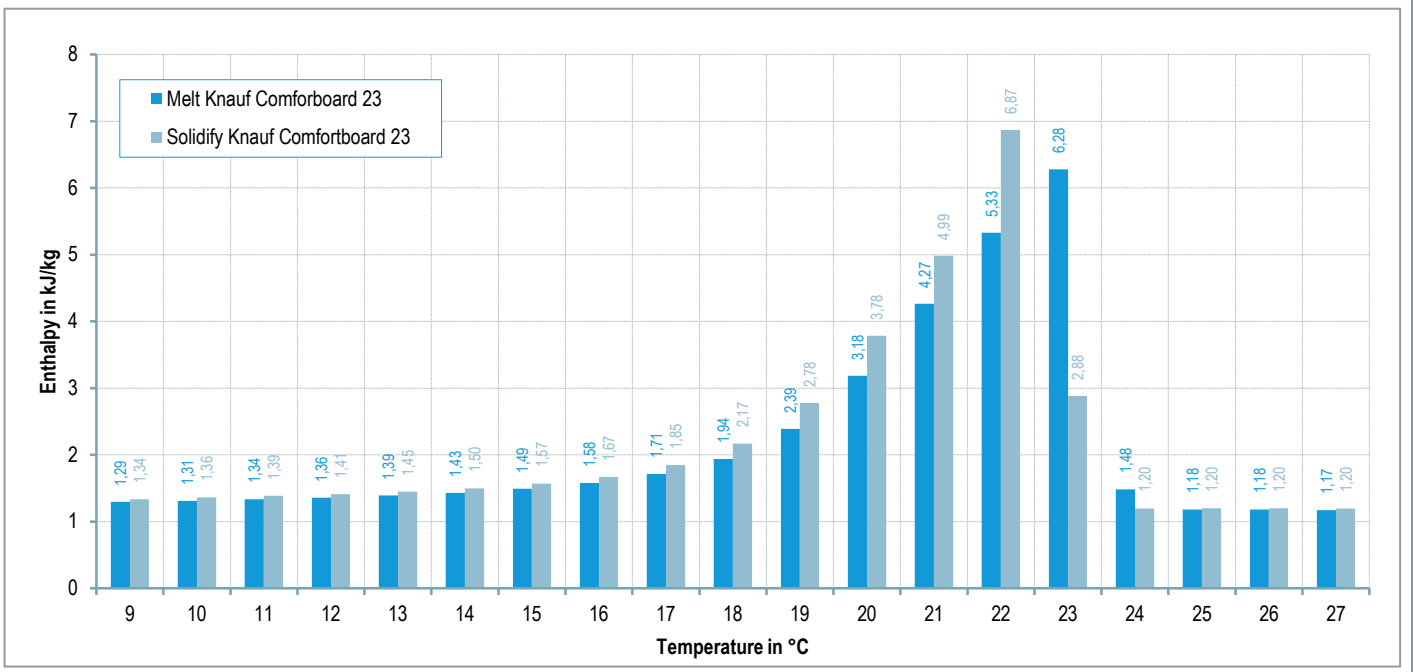
Board weight:	ca. 11 kg/m ²	Density:	ca. 880 kg/m ³
PCM share:	ca. 2 kg/m ²	Thermal conductivity:	ca. 0,23 W/mK
cp:	ca. 12,76 kJ/m ² K	Latent heat:	ca. 1,17 kJ/kgK
		Melt peak:	approx. 23 °C

Melt and solidification enthalpy ΔH for temperature range of 9°C-30°C

T °C	Melt enthalpy ΔH_{melt}				T °C	Solidification enthalpy $\Delta H_{\text{solidify}}$			
	discrete		cumulated			discrete		cumulated	
	J/g	kJ/m ²	J/g	kJ/m ²		J/g	kJ/m ²	J/g	kJ/m ²
5	1,244	13,69	1,24	13,69	5	1,286	14,15	1,29	14,15
6	1,257	13,83	1,26	13,83	6	1,295	14,24	1,29	14,24
7	1,265	13,92	2,52	27,75	7	1,312	14,43	2,61	28,67
8	1,278	14,06	3,80	41,81	8	1,324	14,57	3,93	43,23
9	1,295	14,24	5,10	56,05	9	1,337	14,70	5,27	57,94
10	1,312	14,43	6,41	70,47	10	1,362	14,98	6,63	72,92
11	1,337	14,70	7,74	85,18	11	1,387	15,26	8,02	88,17
12	1,358	14,93	9,10	100,11	12	1,412	15,53	9,43	103,71
13	1,391	15,30	10,49	115,41	13	1,450	15,95	10,88	119,65
14	1,433	15,76	11,93	131,18	14	1,500	16,50	12,38	136,16
15	1,492	16,41	13,42	147,59	15	1,571	17,28	13,95	153,44
16	1,580	17,38	15,00	164,96	16	1,672	18,39	15,62	171,83
17	1,714	18,85	16,71	183,81	17	1,848	20,33	17,47	192,16
18	1,940	21,34	18,65	205,15	18	2,170	23,87	19,64	216,03
19	2,388	26,27	21,04	231,43	19	2,778	30,56	22,42	246,59
20	3,184	35,03	24,22	266,45	20	3,784	41,62	26,20	288,21
21	4,265	46,92	28,49	313,37	21	4,986	54,85	31,19	343,05
22	5,330	58,63	33,82	372,00	22	6,867	75,54	38,05	418,59
23	6,281	69,09	40,10	441,08	23	2,883	31,71	40,94	450,30
24	1,483	16,32	41,58	457,40	24	1,198	13,18	42,13	463,48
25	1,182	13,00	42,76	470,40	25	1,203	13,23	43,34	476,71
26	1,182	13,00	43,95	483,40	26	1,203	13,23	44,54	489,94
27	1,173	12,91	45,12	496,30	27	1,198	13,18	45,74	503,12

Latent heat (10-27°C) approx. 18,9 207,9 approx. 18,9 207,9

Generic enthalpy as a graph



Further information can be found in the Product Data Sheet Knauf Comfortboard 23 | K763.de at www.knauf.de.
The values are based on generic calculation and may diverge in real building materials