



Hot and Cold Benchmarks

Hot and Cold Impact

Na HOT AND COLD BENCHMARKS				In D	Nb IMPACT DAMAGE					In D
K	C	Hits	Descriptor		Speed	kph	Hits	Descriptor	Alt Descriptor	
0	-273	144	Absolute Zero		0	0	0	Still	Not Moving	
25	-250	121	Hydrogen Ice		1	5	1	Creep	Walking	
50	-225	100	Oxygen Ice		2	10	4	Crawl	Running	
75	-200	81	Nitrogen Ice		3	20	9	Xslow		
100	-175	64			4	30	16	Vslow	Sprint 100 m	
125	-150	49		Cold	5	50	25	Slow	Gallop (horse)	
150	-125	36			6	100	36	Standard		
175	-100	25			7	300	49	Cruise		
200	-75	16	Radon Ice		8	500	64	Fast		
225	-50	9			9	700	81	Vfast		
250	-25	4			10	1000	100	Sonic		
275	0	1	Cold		11	2000	121	Supersonic		
300	25	0	Human Temperate		12	3000	144	Hypersonic		
325	50	1	Hot		13	5000	169			
350	75	4			14	10000	196			
375	100	9	Boiling Water		15	20000	225			
400	125	16	Sulfur melts		16	40000	256	Meteoric		
425	150	25			17		289			
450	175	36		Hot	18		324			
475	200	49			19		361			
500	225	64	Tin melts		20		400			
525	250	81	Fire							
550	275	100								
575	300	121								
675	400	225								
775	500	361								
875	600	529								
975	700	729								
1075	800	961								
1175	900	1225								
1275	1000	1521								
1375	1100	1849								
1475	1200	2209								
1875	1500	3481								

Hits per Round (= 1 minute)
Hits calculated based on (K= Kelvins):

$$\text{Hits} = ((K / 25) / 12) ^2$$

Hits upon impact.
Hits calculated based on (S= Speed):

$$\text{Hits} = S^2$$

Multiply by tons (or fractional Tons) of impacting object.
Space Combat uses Size instead of Tons.

INSULATION PROTECTION RANGES				
In=	usually protects against		for absolute protection	
510	-275	to	325	In= 810
430	-250	to	300	In= 730
360	-225	to	275	In= 610
290	-200	to	250	In= 490
230	-175	to	225	In= 390
180	-150	to	200	In= 300
130	-125	to	175	In= 220
90	-100	to	150	In= 160
60	-75	to	125	In= 100
40	-50	to	100	In= 60
20	-25	to	75	In= 30
10	0	to	50	In= 10

For Cold Protection, an On-Board Heater increases the Cold Protected temperature - 100 C.