Cube effectively insulated by using Heat Flux = 0

 I.C. Temp. and Ext. Temp.

|  |  |  |  |
| --- | --- | --- | --- |
| Heat Source / Temps | 293.15 K | 273 K | 0 K |
| 1 J/s applied 1 second | 0.23477 mK, | 0.23477 mK, | 0.24108 mK, |
| 0.1 J/s applied 10 second | 0.17593 mK, | 0.17593 mK, | 0.24108 mK, |
| 1 J applied in 10 pulses: 0.01 J/s Square Wave: 10 s ON, 10 s OFF, Period 20 s, 200 s total. | 0.17145 mK, | 0.17145 mK, | 0.24108 mK, |

\*The external temperature does not matter when Heat Flux = 0.

Conclusion. With heat flux set to 0, the change of temperature in a block of water depends on the initial temperature:

I set I.C. to 4 K to see. The rise was 0.24051 mK,

I set I.C. to 8 K to see. The rise was 0.23919 mK,

I set I.C. to 20 K to see. The rise was 0.23458 mK,

I set I.C. to 40 K to see. The rise was 0.23477 mK,

I set I.C. to 400 K to see. The rise was 0.17593 mK,

I set I.C. to 4000 K to see. The rise was 0.17593 mK,