

BTU Conductivity Testing And Results.

TEST: ASTM E1269 differential scanning calorimeter and ASTM E1461-92, thermal diffusivity was measured using the laser flash technique.

“The thermal conductivity calculations of the metal plate are presented in Table 4 and the results are plotted in Figure 6. The calculations for the paint are given in Table 5 and shown in Figure 7. It should be noted that the conductivity of the paint is independent of the surface to which it is applied – that is, the conductivity of the paint is the same on a metal or a concrete surface.”

1. TPRL testing lab: Stated in cm.2

Conductivity chart : (BTU /hr/ft2/F)

Temp (W cm2 K) BTU

METAL PLATE

73.4 F	0.50523	350.54
122.0	0.52808	366.39
176.0	0.52796	366.30
212.0	0.52925	367.20

SUPER THERM®

73.4	0.00543	3.77 (one coat applied at 14 mils dry)
122.0	0.00564	3.92 “
176.0	0.00587	4.07 “
212.0	0.00575	3.99 “

(The common multiplier from the W cm2 K to BTU is 695 at cm -.00543X695=3.77 / .00564X695=3.92 / etc./etc.)

2. NETZSCH Instruments Inc. Stated in m 2

SUPER THERM®

77.0	0.559	3.89	(one thin layer at 10-12-mils)
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(The BTU was calculated from the same method as TPRL and using the common multiplier of 695. Exception is that this test was stated in meter and not cm, therefore the multiplier is 6.95).

The same test was performed by two different labs to verify our numbers and BTU conduction blocking ability. The results are within 5% and verified.