## ASNT Level III Study Guide: Infrared and Thermal Testing Method

## **Text Corrections**

The following text corrections apply to the first printing of ASNT Level III Study Guide: Infrared and Thermal Testing Method. Subsequent printings of the document will incorporate the corrections into the published text.

**Page 21:** 

Table 2.1 should be replaced with the following table.

Table 2.1: Thermal properties of common materials (in order of increasing thermal diffusivity)

Material	Thermal Diffusivity $\alpha$ $(cm^2/s)$	Thermal Conductivity K (cal/s-cm-°C)	Specific Heat C (cal/g-°C)	Density ρ (g/cm <sup>3</sup> )
Polyisoprene	$7.709 \times 10^{-4}$	3.202 ×10 <sup>-4</sup>	0.455	0.913
Pine (parallel to grain)	$2.06 \times 10^{-3}$	$6.21 \times 10^{-4}$	0.669	0.45
Water	$1.45 \times 10^{-3}$	$1.443 \times 10^{-3}$	0.998	0.997
Glass	$3.43 \times 10^{-3}$	$1.86 \times 10^{-3}$	0.201	2.7
Zirconia	$2.19 \times 10^{-3}$	$1.55 \times 10^{-3}$	0.139	5.1
Ni superalloy	0.0260	0.0227	0.105	8.3
Air	0.221	$6.262 \times 10^{-5}$	0.240	$1.18 \times 10^{-3}$
2024-T4 Al	0.46	0.29	0.23	2.77
Aluminum	0.967	0.561	0.215	2.699
Silicon	1.08	0.406	0.162	2.33
Copper	1.17	0.958	0.092	8.936
Gold	1.26	0.76	0.0312	19.32
Diamond	3.74	1.58	0.12	3.516

Reprinted with permission from Jane Spicer, Thermographic NDT, 1996.