Conductance and Resistance Values for Roofing Materials

Material	Description	Conductivity k, Btu/(h) (ft²) (°F/in.)	Thickness (in.)	Conductance C, Btu/(h) (ft²) (°F)	Resistance R, 1/[Btu/(h) (ft²) (°F)]
Asbestos cement shingles	120 lb/ft³			4.76	0.21
Asphalt shingles	70 lb/ft³			2.27	0.44
Wood shingles				1.06	0.94
Slate			$\frac{1}{2}$	20.0	0.05
Asphalt roll roofing	70 lb/ft³			6.50	0.15
Built-up roofing	Smooth or gravel surface		$\frac{3}{8}$	3.00	0.33
Sheet metal				Negl.	Negl.

Source: Courtesy of Johns-Mansville, Denver, CO.