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## Emissivity Values for Common Materials & Non-Metals

These emissivities values are approximate and may vary depending on the actual material surface and conditions.

Material	Emissivity	1.0 μm	5.0 μm	7.9 μm	8-14 μm
Asbestos	0.9	0.9	0.95	0.95	
Asphalt	n.r.	0.9	0.95	0.95	
Basalt	n.r.	0.7	0.7	0.7	
Carbon					
Unoxidized		0.8-0.95	0.8-0.9	0.8-0.9	0.8-0.9
Graphite	0.8-0.9	0.7-0.9	0.7-0.8	0.7-0.8	
Carborundum	n.r.	0.9	0.9	0.9	0.9
Ceramic	0.4		0.85-0.95	0.95	0.95
Clay	n.r.	0.85-0.95	0.95	0.95	
Concrete	0.65	0.9	0.95	0.95	
Cloth	n.r.	0.95	0.95	0.95	
Glass					
Plate	n.r.	0.98	0.85	0.85	
Gob	n.r.	0.9	n.r.	n.r.	
Gravel	n.r.	0.95	0.95	0.95	
Gypsum	n.r.	0.4-0.97	0.8-0.95	0.8-0.95	
Ice	n.r.		0.98	0.98	
Limestone	n.r.	0.4-0.98	0.98	0.98	
Paint (non-Al.)		0.9-0.95	0.9-0.95	0.9-0.95	
Paper (any color)	n.r.	0.95	0.95	0.95	0.95
Plastic					
Qpaque	n.r.	0.95	0.95	0.95	
Over 20 mils	n.r.				
Rubber	n.r.	0.9	0.95	0.95	
Sand	n.r.	0.9	0.9	0.9	
Snow	n.r.		0.9	0.9	
Soil	n.r.	< td>	0.9-0.98	0.9-0.98	
Water	n.r.		0.93	0.93	
Wood, (natural)	n.r.	0.9-0.95	0.9-0.95	0.9-0.95	

n.r. = not recommended