

# HASTELLOY<sup>®</sup> C-276 alloy

## Physical Properties

Physical Property	British Units		Metric Units	
<b>Density</b>	RT	0.321 lb/in <sup>3</sup>	RT	8.89 g/cm <sup>3</sup>
<b>Electrical Resistivity</b>	RT	48.4 μohm.in	RT	1.23 μohm.m
	200°F	48.7 μohm.in	100°C	1.24 μohm.m
	400°F	49.0 μohm.in	200°C	1.25 μohm.m
	600°F	49.5 μohm.in	300°C	1.26 μohm.m
	800°F	49.8 μohm.in	400°C	1.26 μohm.m
	1000°F	50.6 μohm.in	500°C	1.28 μohm.m
	-	-	600°C	1.30 μohm.m
<b>Thermal Conductivity</b>	100°F	71 Btu.in/h.ft <sup>2</sup> .°F	50°C	10.5 W/m.°C
	200°F	77 Btu.in/h.ft <sup>2</sup> .°F	100°C	11.2 W/m.°C
	400°F	90 Btu.in/h.ft <sup>2</sup> .°F	200°C	12.9 W/m.°C
	600°F	104 Btu.in/h.ft <sup>2</sup> .°F	300°C	14.7 W/m.°C
	800°F	117 Btu.in/h.ft <sup>2</sup> .°F	400°C	16.5 W/m.°C
	1000°F	132 Btu.in/h.ft <sup>2</sup> .°F	500°C	18.3 W/m.°C
<b>Mean Coefficient of Thermal Expansion</b>	75-200°F	6.2 μin/in.°F	24-100°C	11.2 μm/m.°C
	75-400°F	6.7 μin/in.°F	24-200°C	12.0 μm/m <sup>2</sup> .°C
	77-600°F	7.1 μin/in.°F	24-300°C	12.7 μm/m.°C
	77-800°F	7.3 μin/in.°F	24-400°C	13.1 μm/m.°C
	77-1000°F	7.4 μin/in.°F	24-500°C	13.3 μm/m.°C
	77-1100°F	7.8 μin/in.°F	24-600°C	13.8 μm/m.°C
<b>Magnetic Permeability</b>	200 oersted	1.0002	15.9 kA/m	1.0002
<b>Specific Heat</b>	RT	0.102 Btu/lb.°F	RT	427 J/kg.°C
<b>Dynamic Modulus of Elasticity</b>	RT	29.8 x 10 <sup>6</sup> psi	RT	205 GPa
	400°F	28.3 x 10 <sup>6</sup> psi	200°C	195 GPa
	600°F	27.3 x 10 <sup>6</sup> psi	300°C	189 GPa
	800°F	26.4 x 10 <sup>6</sup> psi	400°C	183 GPa
	1000°F	25.5 x 10 <sup>6</sup> psi	500°C	178 GPa
<b>Melting Range</b>	2415-2500°F	-	1323-1371°C	-
<b>Poisson's Ratio</b>	-	-	RT	0.31

RT = Room Temperature

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