

HASTELLOY[®] N alloy

Physical Properties

Physical Property	British Units		Metric Units	
	Density	RT	0.320 lb./in. ³	RT
Melting Range	2375-2550°F	-	1300-1400°C	-
Thermal Conductivity	400°F	89 Btu-in./ft. ² -hr.-°F	200°C	13.1 W/m-°C
	600°F	101 Btu-in./ft. ² -hr.-°F	300°C	14.4 W/m-°C
	800°F	114 Btu-in./ft. ² -hr.-°F	400°C	16.5 W/m-°C
	1000°F	130 Btu-in./ft. ² -hr.-°F	500°C	18.0 W/m-°C
	1200°F	151 Btu-in./ft. ² -hr.-°F	600°C	20.3 W/m-°C
	1400°F	176 Btu-in./ft. ² -hr.-°F	700°C	23.6 W/m-°C
Mean Coefficient of Thermal Expansion	70-400°F	6.9 μin/in.-°F	20-200°C	12.3 μm/m-°C
	70-600°F	7.3 μin/in.-°F	20-400°C	13.0 μm/m-°C
	70-800°F	7.4 μin/in.-°F	20-600°C	13.4 μm/m-°C
	70-1000°F	7.5 μin/in.-°F	20-700°C	13.8 μm/m-°C
	70-1200°F	7.9 μin/in.-°F	20-800°C	14.5 μm/m-°C
	70-1400°F	8.2 μin/in.-°F	20-900°C	14.9 μm/m-°C
Electrical Resistivity	70°F	47.5 μohm-in.	20°C	120.5 μohm-cm
	1300°F	49.6 μohm-in.	705°C	126.0 μohm-cm
	1500°F	48.8 μohm-in.	815°C	124.1 μohm-cm
Dynamic Modulus of Elasticity	70°F	31.7 x 10 ⁶ psi	20°C	219 GPa
	400°F	29.4 x 10 ⁶ psi	200°C	204 GPa
	800°F	27.7 x 10 ⁶ psi	400°C	192 GPa
	1000°F	26.7 x 10 ⁶ psi	600°C	181 GPa
	1200°F	25.8 x 10 ⁶ psi	700°C	171 GPa
	1400°F	24.1 x 10 ⁶ psi	800°C	163 GPa
	1600°F	22.4 x 10 ⁶ psi	900°C	151 GPa
	1800°F	20.1 x 10 ⁶ psi	1000°C	136 GPa

RT= Room Temperature