

HAYNES[®] Waspaloy alloy

Physical Properties

Physical Property	British Units		Metric Units	
Density	RT	0.296 lb/in ³	RT	8.20 g/cm ³
Melting Temperature	2425-2475°F	-	1330-1360°C	-
Thermal Conductivity	400°F	88 Btu-in/ft ² -hr-°F	200°C	12.6 W/m-°C
	800°F	112 Btu-in/ft ² -hr-°F	400°C	15.7 W/m-°C
	1000°F	125 Btu-in/ft ² -hr-°F	600°C	19.1 W/m-°C
	1200°F	139 Btu-in/ft ² -hr-°F	700°C	20.9 W/m-°C
	1400°F	152 Btu-in/ft ² -hr-°F	800°C	22.7 W/m-°C
	1600°F	167 Btu-in/ft ² -hr-°F	900°C	24.5 W/m-°C
Mean Coefficient of Thermal Expansion	70-800°F	7.6 μin/in -°F	20-500°C	13.9 x 10 ⁻⁶ m/m-°C
	70-1000°F	7.8 μin/in -°F	20-600°C	14.3 x 10 ⁻⁶ m/m-°C
	70-1200°F	8.1 μin/in -°F	20-700°C	14.8 x 10 ⁻⁶ m/m-°C
	70-1400°F	8.4 μin/in -°F	20-800°C	15.4 x 10 ⁻⁶ m/m-°C
	70-1600°F	8.9 μin/in -°F	20-900°C	16.4 x 10 ⁻⁶ m/m-°C
	70-1800°F	9.7 μin/in -°F	20-1000°C	17.8 x 10 ⁻⁶ m/m-°C
Dynamic Modulus of Elasticity	70°F	30.9 x 10 ⁶ psi	20°C	213 GPa
	400°F	29.5 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	180 GPa
	1200°F	25.6 x 10 ⁶ psi	700°C	172 GPa
	1400°F	24.3 x 10 ⁶ psi	800°C	164 GPa
	1600°F	22.9 x 10 ⁶ psi	900°C	155 GPa
	1800°F	21.1 x 10 ⁶ psi	1000°C	146 GPa

RT= Room Temperature