

Physical Properties of the Earth's Core ¹

Parameter Name	Used Symbol	Typical Value
Latent Heat	L	6.0 x 10 ⁵ J/kg
Specific Heat Capacity	C _P	800 J/(K)(kg)
Thermal Conductivity	κ	35 W/(K)(m)
Thermal Expansivity	α	10 ⁻⁵ K ⁻¹
Mass of Core	M _C	1.95 x 10 ²⁴ kg
Mass of Light Element	M _L	6.8 x 10 ²² kg
Density Jump ²	Δρ	400 kg/m ³
Current Outer-core Radius	b	3.48 x 10 ⁶ m
Current Inner-core Radius	c	1.22 x 10 ⁶ m

1. All data after Buffet et al. (1996)

2. The nominal value of the density jump due to compositional change across the inner-to-outer core boundary.