

STELLITE 250

STELLITE™ 250 ALLOY

TECHNICAL DATA

CASTINGS | TIG & OXY-ACETYLENE WELDING | MMA WELD DEPOSITION | PTA & LASER WELD DEPOSITION

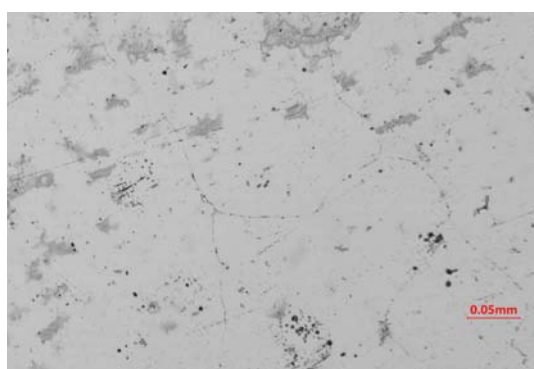
NOMINAL COMPOSITION (MASS %) AND PHYSICAL PROPERTIES

Co	Cr	Fe	C	Si	Others	Hardness	Density	Melting Range
Base	28	20	0.1	1.0	Mn	18-29 HRC	8.05 g/cm ³ 0.291 lb/in ³	1380-1395°C 2515-2540°F

STELLITE™ COBALT-BASED ALLOYS consist of complex carbides in an alloy matrix. They are resistant to wear, galling, and corrosion and retain these properties at high temperatures. Their exceptional wear resistance is due mainly to the unique inherent characteristics of the hard carbide phase dispersed in a CoCr alloy matrix.

STELLITE 250 is a cobalt-chromium-iron heat-resistant alloy with excellent resistance to thermal shock, oxidation, and hot corrosion. **STELLITE 250** is suitable for various uses in heat treatment furnaces or metallurgical industrial furnaces such as roasters and smelters. Potential applications include thermowells, tuyeres, lances, gaskets, grates, trays, skids for slab-reheat furnaces, gas and pulverized coal burners, discharge rolls and channels, radiant tube supports, and certain parts in contact with molten slags and ore.

STELLITE 250 is designed to resist carburization and sulphidization of furnace components, and is machinable.



Stellite 250 cast microstructure at 200x

NOMINAL TENSILE PROPERTIES AT ROOM TEMPERATURE

	Ultimate Tensile Strength Rm		Yield Stress Rp (0.2%)		Elongation	Elastic Modulus	
	ksi	MPa	ksi	MPa		ksi	GPa
Casting	80	551	46	314	8	31,000	214

NOMINAL HOT HARDNESS (DPH)

	22°C (72°F)	100°C (212°F)	200°C (392°F)	300°C (572°F)	400°C (752°F)	500°C (932°F)	600°C (1112°F)	700°C (1292°F)	800°C (1472°F)	900°C (1652°F)
Casting	250	245	235	222	210	195	180	163	107	75

Available Product Forms: **STELLITE 250** is available in finished castings, rod, and powder.

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