



Dry cell battery manufacturing mold

Technical datasheet

Stellite 4

Major specifications

ASTM B426/B659 AMS 5785 UNS R30004

Available product forms

Cobalt plate Thickness: 0.3mm - 150.0mm
Cobalt strip/nickel foil Thickness: 0.02mm - 16.0mm
Cobalt pipe Outside diameter: 6mm - 1219mm
Cobalt bar Diameter: Φ 4mm - Φ 600mm
The current stock range can be found on www.lorkalloy.com.
Further dimensions available upon request.
Use our Service Centre to have the available sizes cut to your desired dimensions.

Key features

Stellite 4 offers excellent oxidation and corrosion resistance, with chromium forming a protective oxide layer for marine, chemical, and oil & gas applications. Maintains strength and hardness up to 850°C – ideal for heat exchangers and turbines. Dispersed carbides provide exceptional wear resistance for valve seats and sliding tools. Withstands thermal fatigue under rapid temperature cycling, making it suitable for power generation. Hard to machine but weldable for hard-facing – extends service life of tools and valves.

Chemical properties

Composition - limits in % (UNS R30004)

Co	Cr	W	C	Ni/Fe	Si
Base	max.32.0	max.15.0	max.3.0	max.3.0	max.1.0

Physical and thermal properties

Density	8.55-8.75 g/cm ³
Melting temperature	1240-1360°C
Thermal Conductivity	13.1 W/(m·K)
Hardness	HRC 42-52

Typical mechanical properties (room temperature)

Ultimate Tensile Strength	~775 MPa
Yield Strength	~550 MPa

Typical mechanical properties (typical values, depending on specific shape and process)

*This data comes from <https://www.lorkalloy.com/>