DUCTILE COBALT STRIP AMETEK 591 ALLOY

TECHNICAL DATASHEET

DESCRIPTION

The 591 alloy was engineered exclusively by AMETEK Specialty Metal Products for fine weld wire applications. The alloy exhibits more elongation than other available cobalt alloys allowing finer diameter sizes. In addition to 591 alloy other special cobalt composites are available such as 580, 589, 595, and 599 alloys.

AMETEK Specialty Metal Products will also custom design other alloys to meet your needs.

COIL SIZES

Pancake coils on cores

Up to 200 lb. per inch of width with no weld.
Typical sizes 55 to 100 pounds.

Oscillated/traverse wound on spools/reels

Up to 225 continuous pounds per coil with fully integrated (invisible) welds.

Standard spool/reel sizes available.

CONDITION

591 alloy is normally furnished in the annealed condition but can be furnished, on request, with various degrees of cold reduction.

STANDARD SIZES AVAILABLE	
Thickness	0.002 to 0.050 inches
Width	Up to 12 inches

TYPICAL COMPOSITION	
Cobalt (Co)	91%
Iron (Fe)	5.2%
Nickel (Ni)	3.8%
Copper (Cu)	0.01%

STANDARD TOLERANCES		
Thickness		±5%
Width	Under 1 inch	±0.003 inches
	Over 1 inch	±0.005 inches

Special tolerances on request.

TYPICAL PROPERTIES OF ANNEALED COBALT STRIP	
Ultimate Tensile Strength	87,000 psi
Elongation in 2 inches	65%
Hardness	140 VHN
Deep Drawing Ability	13.5 mm

PHYSICAL CONSTANTS OF COBALT	
Density	8.75 g/cc
Melting Point	2714°F 1490°C

ISO 9002 CERTIFIED

WALLINGFORD / AMETEK® SPECIALTY METAL PRODUCTS

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