



Manufacturers of Custom Welding Lines for Resale
www.selectrode.com

SELECTRODE 1212

Cobalt Grade 12 Electrode

INTERNATIONAL CLASSIFICATIONS

AWS/ASME A 5.13 E CoCr-B EN 14700 E Co2
DIN 8555: E20-UM-50-CTZ

FEATURES & APPLICATIONS

Hardfacing tools used for processing plastics, wood, and paper products including hot shear blades and extrusion screws.

Extremely smooth running Alloy 12 Cobalt electrode

- Excellent resistance to metal and mineral abrasion.
- Slag is self releasing.
- Weld deposits are unusually fine rippled and uniform.
- Available bare as product code 1292.
- Special technology also performs on AC current.

ALL WELD METAL ANALYSIS (TYPICAL WEIGHT %)

Microstructure: Cobalt based austenite with some carbides and other complex phases.

Flux Color: Grey

Tip Color: Turquoise

C	Mn	Si	Cr	Fe	Mo	Ni	W	Co
1.6	.8	1.0	29	3	1	3	8.5	Bal.

TYPICAL MECHANICAL PROPERTIES

Undiluted Weld Metal**Maximum Value Up to:**

Hardness

Room Temperature: 68°F (20°C) Rockwell C50

Work Hardened Rockwell C58

Elevated Temperatures: 750°F (400°C) Rockwell C44

1110°F (600°C) Rockwell C40

1475°F (800°C) Rockwell C37

1620°F (900°C) Rockwell C35

WELDING CURRENT & INSTRUCTIONS**Recommended Current:** AC or DC Reverse (+)

Diameter (mm)	3/32 (2.5)	1/8 (3.25)	5/32 (4.0)
Minimum Amperage	65	80	100
Maximum Amperage	85	110	130

Welding Techniques: Preheat massive parts to 570°F (300°C). Minimize amperage during welding.

Welding Positions: Flat, horizontal

Deposition Rates:

Diameter (mm)	Length (mm)	Weldmetal/ Electrode	Electrodes per lb (kg) of Weldmetal	Arc Time of Deposition min/lb (kg)	Amperage Settings	Recovery Rate
3/32 (2.5)	14" (350)	.80 oz. (22g)	20 (44)	19 (42)	75	130%
1/8 (3.25)	14" (350)	1.2 oz (33g)	13 (29)	14 (31)	95	130%
5/32 (4.0)	14" (350)	1.56 oz (44g)	10 (22)	11 (24)	115	130%

APPROXIMATE ELECTRODE PACKAGING & DIMENSIONS

Diameter (mm)	3/32 (2.5)	1/8 (3.25)	5/32 (4.0)
Length (mm)	14" (350)	14" (350)	14" (350)
Electrodes / lb	18	11	7
Electrodes / kg	40	25	16