

**DESCRIPTION**

Stoodite® 6 bare rod provides resistance to many forms of chemical and mechanical degradation over a wide temperature range. It is the most versatile and widely used cobalt alloy, with a good balance of abrasion and impact resistance. Particular attributes of Stoodite® 6 are its outstanding anti-galling properties, high temperature hardness and high resistance to cavitation erosion that results in its wide use as a valve seat material. It bonds well to all weldable grade steels and stainless.

**TYPICAL DEPOSIT CHARACTERISTICS**

Abrasion Resistance	Excellent
Impact Resistance	Good
Corrosion Resistance	Good
Hardness	HRC 40 - 42
Hot Hardness	Excellent
Magnetic	No
Deposit Layers	2 Maximum
Surface Cross Check	Not with proper preheat
Machinability	Use carbide tools/grind
Specifications	
AWS / SFA A5.21-2001	ERCoCr-A
Mil-R-17131C	Type Mil-RCoCr-A-1

**TYPICAL DEPOSIT CHEMISTRY (wt%)**

Carbon	1.2
Chromium	29.0
Iron	2.1
Manganese	0.05
Molybdenum	0.10
Nickel	2.0
Silicon	1.2
Tungsten	4.7
Cobalt	Balance

**TYPICAL APPLICATIONS**

Typical applications include:

- Zinc tanks
- Forging dies
- Diesel engine valves
- Trimmer dies
- Guide rolls
- Trunnions

**TYPICAL APPLICATIONS (CONT.)**

- Chemical and steam valve trim
- Bearing and bushing areas
- Plastic extrusion screws

**OPERATIONAL CHARACTERISTICS / WELDING PARAMETERS**

**GTAW**

Diameter, in. (mm)	<b>1/8 (3.2)</b>	<b>5/32(4.0)</b>	<b>3/16 (4.8)</b>
Current, Amp. DCEN	90 - 120	120 - 140	140 - 160
Voltage	20 - 40	20 - 40	20 - 40
Shielding Gas	100%	100%	100%
	Argon	Argon	Argon

**OAW**

Tip Size	4	4	5
Flame	3X - 4X	3X - 4X	3X - 4X
Position	Flat	Flat	Flat

**GTAW**

Diameter, in. (mm)	<b>1/4 (6.4)</b>	<b>5/16 (8.0)</b>
Current, Amp. DCEN	160 - 180	
Voltage	20 - 40	
Shielding Gas	100% Argon	

**OAW**

Tip Size	6	6
Flame	3X - 4X	3X - 4X
Position	Flat	Flat

**STANDARD SIZES & PACKAGING**

Diameter	Packaging	Part #
1/8" (3.2mm)	10# box	11361100
	20# box	11336300
5/32" (4.0mm)	10# box	11347200
	20# box	11327500
3/16" (4.8mm)	10# box	11259600
	20# box	11313500
1/4" (6.4mm)	10# box	11259300
	20# box	11297800
5/16" (8.0mm)	10# box	11259700
	20# box	11313800

**Stoody Company**

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