

## STOODITE® 6

### Bare Rod For OAW & GTAW

AWS Classification A5.21/A5.21M:2011 ERCoCr-A, Mil-R-17131C Type MIL-RCoCr-A-1

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 it's outstanding anti-galling properties, high temperature hardness, and high resistance to cavitation erosion that results in it's wide use as a valve seat material. It bonds well to all weldable grade steels and stainless.

#### TYPICAL MECHANICAL PROPERTIES

Abrasion Resistance	Excellent
Impact Resistance	Good
Corrosion Resistance	Good
Hardness (2 layers), HRC	40 – 48
Hot Hardness	Excellent
Magnetic	No
Deposit Layers	2 Maximum
Surface Cross Check	Not with proper preheat
Machinability	Use carbide tools/grind

#### 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

- Zinc tanks
- Forging dies
- Diesel engine valves
- Trimmer dies
- Guide rolls
- Trunnions
- Chemical and steam valve trim
- Bearing and bushing areas
- Plastic extrusion screws

#### OPERATIONAL CHARACTERISTICS/WELDING PARAMETERS (DCEP)

##### GTAW

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

##### OAW

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

##### GTAW

Diameter, in. (mm)	<b>3/32 (2.4)</b>	<b>1/4 (6.4)</b>	<b>5/16 (8.0)</b>
Current, amp	80 – 120	160 – 180	---
Voltage	20 – 40	20 – 40	---
Shielding Gas	100% Argon	100% Argon	---

##### OAW

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

**Note:** Minimum preheat recommended is 400°F (204°C). Required preheat will depend on base material composition and component dimensions.

#### STANDARD SIZES & PACKAGING

Diameter	Packaging	Part #
3/32" (2.4 mm)	5 lb (2.3 kg) Screw Pack	11705400
1/8" (3.2 mm)	5 lb (2.3 kg) Screw Pack	11361100
5/32" (4.0 mm)	5 lb (2.3 kg) Screw Pack	11347200
3/16" (4.8 mm)	5 lb (2.3 kg) Screw Pack	11259600
1/4" (6.4 mm)	5 lb (2.3 kg) Screw Pack	11259300

MIL-Spec certified products have unique part numbers. Contact Customer Service for assistance.

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NOTICE - Failure to follow manufacturer's directions for use may result in equipment or material failure and void any applicable warranty. The data provided or referenced herein is provided for informational purposes only, without guarantee or warranty and represents "typical" results when Stoodie products are used in accordance with internal Stoodie procedures. Other tests and procedures may produce differing results. Stoodie expressly disclaims any liability resulting from reliance on this data.

PROTECT YOURSELF AND OTHERS - Users should read and follow all recommended guidance on health and safety from their employer, the supplier, the manufacturer, and government authorities. These, at a minimum including the Warning Labels on the products and the Safety Data Sheets ("SDS"). The SDS and additional safety information may be found on materials or links at: Stoodie.com.