

**DESCRIPTION**

Stoodite® 1 is the highest hardness standard Stoodite® alloy in the group of cobalt alloys used for elevated temperature abrasive wear associated with corrosion. Deposits of this alloy have a large volume of chromium carbides that impart outstanding abrasive wear resistance. The addition of tungsten enhances high temperature hardness and matrix toughness for excellent adhesive and solid particle erosion wear resistance. It bonds well with all steels, including stainless.

**TYPICAL DEPOSIT CHARACTERISTICS**

Abrasion Resistance	Excellent
Impact Resistance	Fair
Corrosion Resistance	Good
Hardness (2 layer)	HRC 46 - 50
Hot Hardness	Excellent
Magnetic	No
Deposit Layers	2 Maximum
Surface Cross Check	Not with preheat
Machinability	Use carbide tools/grind
Specifications	
AWS / SFA A5.13-2000	ECoCr-C

**TYPICAL DEPOSIT CHEMISTRY (wt%)**

Carbon	2.1
Chromium	29.6
Iron	3.3
Manganese	0.1
Molybdenum	0.1
Nickel	1.9
Silicon	0.9
Tungsten	12.1
Cobalt	Balance

**TYPICAL APPLICATIONS**

- Typical applications include:
- Mixer seals and rotors
  - Chemical valve balls and seats
  - Cement handling systems
  - Oil drilling tools
  - Paper-pulp components
  - Extrusion screws
  - Steel mill components

**OPERATIONAL CHARACTERISTICS / WELDING PARAMETERS**

Diameter, in. (mm)	<b>1/8 (3.2)</b>	<b>5/32(4.0)</b>
Current, Amp. DCEP	90 - 120	135 - 160
Position	Flat	Flat
Diameter, in. (mm)	<b>3/16 (4.8)</b>	<b>1/4 (6.4)</b>
Current, Amp. DCEP	160 - 180	220 - 270
Position	Flat	Flat

**STANDARD SIZES & PACKAGING**

Diameter	Packaging	Part #
1/8" (3.2mm)	10# Vac Pak	10240700
5/32" (4.0mm)	10# Vac Pak	10241100
3/16" (4.8mm)	10# Vac Pak	10241500
1/4" (6.4mm)	10# Vac Pak	10241900

**Stoody Company**

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