

**\* STOODY** Shielded Metal Arc Welding (Stick) Electrodes



**GROUP 3 (continued) – Metal-To-Earth and/or Severe Wear - Iron**

**35 Primary Chromium Carbides in an Austenitic Matrix (38%) - Chromium, Carbon, Silicon, Manganese**

Part No	Price Per Pack	Size (dia) x (lgth)	Packaging	Amperage Range/Position	Description	Typical Deposit Characteristics	Typical Applications
11322900	\$126.30	1/8" x 14"	10lb. Vac	125 - 175 Flat / Horz	Primary applications for Stoody 35 involve severe abrasion with moderate to heavy impact. It is normally used for earth-to-metal wear or wear due to abrasion of other particulate material. Stoody 35 is a solid core electrode with a heavy extruded coating that contains the alloying elements. It can be applied out of position. Deposits are uniform with excellent bead appearance and slag removal. Stoody 35 bonds readily to carbon, low alloy, and manganese steel. It develops surface checks and is not machinable or forgeable. Compressive strength is very high.	<b>Abrasion Resistance:</b> ..... Excellent <b>Impact Resistance:</b> .. Moderate <b>Hardness w/2 Layers Deposited on 1045 Steel:</b> .....HRC 53 - 57 <b>Manganese Steel:</b> HRC 50 - 53 <b>Work Hardened:</b> .....HRC 58 - 60 <b>Deposit Layers:</b> ..... Up to 2 <b>Surface Cross Checks:</b> ..... No <b>Machinability:</b> .....No <b>Magnetic:</b> ..... Slightly	<ul style="list-style-type: none"> <li>• Bucket Teeth</li> <li>• Augers and Screws (Earth Engaging)</li> <li>• Crushing Equipment</li> <li>• Tile Mixer Paddles</li> <li>• Mill Hammers</li> </ul>
11322900-1	\$23.50	1/8" x 14"	1lb.	125 - 175 Flat / Horz			
11318200	\$122.11	5/32" x 14"	10lb. Vac	175 - 250 Flat			
11318200-1	\$22.60	5/32" x 14"	1lb.	175 - 250 Flat			
11318300	\$120.00	3/16" x 14"	10lb. Vac	225 - 300 Flat			
11318400	\$118.80	1/4" x 18"	10lb. Vac.	275 - 350 Flat			
<p align="center"><b>Hard Surfacing &amp; Impact Of Carbon, Low Alloy Steel, AC or DC+</b></p>							

**GROUP 4 – Metal-To-Earth Extreme Abrasion / Low Impact –Iron Base**

**VANCAR E Vanadium and Tungsten Carbides in an Iron Based Matrix (37%) – Vanadium, Tungsten, Carbon, Silicon, Molybdenum, Manganese, Nickel**

11327600	\$397.80	5/32" x 14"	10lb. Vac	80 - 130 Flat	Stoody Vancar E is a coated fabricated electrode that contains specially formulated vanadium tungsten carbide particles approximately equal to tungsten carbide in hardness but at only half the density. Vancar has an advantage over tungsten carbide because it can be applied in multiple layers and still retain it's original hardness due to uniform distribution of the carbide particles. This provides wear rates that remain uniform throughout the life of the deposit.	<b>Abrasion Resistance:</b> ..... Excellent <b>Impact Resistance:</b> ..... Low <b>Hardness w/2 Layers Deposited on 1045 Steel:</b> .....HRC 51 – 55 <b>Manganese Steel:</b> HRC 45 - 49 <b>Deposit Layers:</b> ..... Up to 3 <b>Surface Cross Checks:</b> .....No <b>Machinability:</b> .....No <b>Magnetic:</b> ..... Yes	<ul style="list-style-type: none"> <li>• Farm Drill Points</li> <li>• Dry Cement Pump Screws</li> <li>• Ammonia Injector Wings</li> <li>• Pug Mill Knives</li> <li>• Drill Pipe Stabilizer Wings</li> <li>• Chisels</li> </ul>
11327600-1	\$68.80	5/32" x 14"	1lb.	80 - 130 Flat			
11296500	\$395.80	3/16" x 14"	10lb. Vac	130 - 165 Flat			
<p align="center"><b>Hard Surfacing &amp; Low Impact Resistance Of Carbon &amp; Low Alloy Steel, DC-</b></p>							

**Group 5 – Abrasion Accompanied By Corrosion / High Temperatures – Cobalt Base**

**Stoodite 1 Carbon 2.1, Chromium 29.6, Iron 3.3, Manganese .01, Molybdenum .01, Nickel 1.9, Silicon .09, Tungsten 12.1**

10240700	\$598.90	1/8" x 14"	10lb. Vac	90 - 130 Flat	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.	<b>Abrasion Resistance:</b> ..... Excellent <b>Impact Resistance:</b> ..... Fair <b>Corrosion Resistance:</b> ..... Good <b>Hardness w/2 Layers:</b> .....HRC 46 - 50 <b>Hot Hardness:</b> ..... Excellent <b>Deposit Layers:</b> ..... Up to 2 <b>Surface Cross Checks:</b> ..... Not With Preheat <b>Machinability:</b> .....Use Carbide Tools / Grind <b>Magnetic:</b> .....No	<ul style="list-style-type: none"> <li>• Mixer seals and rotors</li> <li>• Chemical valve balls and seats</li> <li>• Cement handling systems</li> <li>• Oil drilling tools</li> <li>• Paper-pulp components</li> <li>• Extrusion screws</li> <li>• Steel mill components</li> </ul>
10241100	\$578.70	5/32" x 14"	10lb. Vac	135 - 160 Flat			
10241500	\$568.40	3/16" x 14"	10lb. Vac	160 - 180 Flat			
<p align="center"><b>Surfacing &amp; Corrosion All Weldable Steels Including Stainless, DC+ Specifications AWS / SFA A5.13-2000 ECoCr-C</b></p>							

**Stoodite 6 Carbon 1.1, Chromium 28.8, Iron 3.2, Manganese .01, Molybdenum .01, Nickel 1.9, Silicon 1.0, Tungsten 4.5**

10242700	\$535.90	1/8" x 14"	10lb. Vac	90 - 120 Flat	Stoodite 6 coated electrodes produce a medium hardness cobalt-chromium deposit for high temperature applications with good abrasive wear and good impact resistance. Stoodite 6 is the most versatile and widely used cobalt alloy with a good balance of abrasion and impact resistance. Chromium carbides contained in the deposit have excellent resistance to many forms of chemical and mechanical degradation, including galling and cavitation erosion. It bonds well with all weldable steels, including stainless.	<b>Abrasion Resistance:</b> ..... Very Good <b>Impact Resistance:</b> ..... Good <b>Corrosion Resistance:</b> ..... Good <b>Hardness:</b> .....HRC 38 - 40 <b>Hot Hardness:</b> ..... Excellent <b>Deposit Layers:</b> ..... Up to 2 <b>Surface Cross Checks:</b> .....No <b>Machinability:</b> .....Use Carbide Tools <b>Magnetic:</b> .....No	<ul style="list-style-type: none"> <li>• Chemical and steam valve trim</li> <li>• Bearing and bushing areas</li> <li>• Food processing equipment</li> <li>• Zinc tanks</li> <li>• Trimmer dies</li> <li>• Forging dies</li> <li>• Guide rolls</li> <li>• Trunnions</li> <li>• Diesel engine valves</li> </ul>
10243100	\$521.70	5/32" x 14"	10lb.	135 - 160 Flat			
10243500	\$450.20	3/16" x 14"	10lb. Vac	160 - 180 Flat			
<p align="center"><b>Surfacing &amp; Corrosion All Weldable Steels Including Stainless, DC+ Specifications AWS / SFA A5.13-2000 ECoCr-A</b></p>							

**Stoodite 21 Carbon .2, Chromium 27.9, Iron 3.4, Manganese .05, Molybdenum 5.2, Nickel 2.5, Silicon .07, Tungsten .1**

812101205125	\$599.60	1/8" x 14"	10lb. Vac	90 - 120 Flat	Stoodite 21 coated electrodes deposit a low carbon austenitic type cobalt alloy with excellent work hardenable high temperature strength and impact resistance. These deposits are quite stable during thermal cycling, making them a favorite for hot die materials. Resistance to galling (self-mating), corrosion, and cavitation erosion makes Stoodite 21 a good choice for valve trim on steam and fluid control valve bodies and seats. It bonds well to all weldable steels, including stainless.	<b>Abrasion Resistance:</b> ..... Fair <b>Impact Resistance:</b> ..... Excellent <b>Hardness w/2 Layers:</b> .....HRC 24 -28 <b>Work Hardened:</b> .....HRC 40 - 45 <b>Deposit Layers:</b> ..... Unlimited <b>Surface Cross Checks:</b> .....No <b>Machinability:</b> .....Use Carbide Tools <b>Magnetic:</b> .....No	<ul style="list-style-type: none"> <li>• Steam valves</li> <li>• Forging dies</li> <li>• Chemical and petro-chemical valves</li> <li>• Hydro-turbine cavitation repair</li> <li>• Hot shears</li> <li>• Piercing plugs</li> </ul>
812101205156	\$571.10	5/32" x 14"	10lb. Vac	135 - 160 Flat			
11889200	\$566.90	3/16 x 14"	10lb. Vac	160 - 180 Flat			
<p align="center"><b>Impact &amp; Corrosion All Weldable Steels Including Stainless, DC+ Specifications AWS / SFA A5.13-2000 ECoCr-E</b></p>							

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