Shielded Metal Arc Welding (Stick) Electrodes

GROUP 1 - Build-Up and Joining Alloys - Iron Base

Build-up LH Low Alloy (4.5%) Chromium I	Molyhdonum	Manganasa	Silicon Carbon
IDUIU-UU LA LOW ANOV (4.57	5) - Californium, i	ivioivoaenum. !	wandanese.	SHICOH, CAIDOH

Part No	Price Per Pack	Size (dia) x (lgth)	Packaging	Amperage Range/Position	Description	Typical Deposit Characteristics	Typical Applications
11414100 11414100-1 11412900 11412900-1 11412900-1 11413000 11413100	\$49.95 \$8.95 \$39.40 \$7.95 \$37.50 \$37.50	1/8" x 14" 1/8" x 14" 5/32" x 14" 5/32" x 14" 3/16" x 14" 1/4" x 18" Build-Up arbon Steel,	•	100 - 185 All 100 - 185 All 140 - 250 All 140 - 250 All 140 - 250 All 180 - 310 Flat 200 - 360 Flat	This electrode has a special low hydrogen coating which provides a high strength fusion bond on carbon and low alloy steels. As a base alloy for hardsurfacing overlays or for restoring parts to original dimensions, it provides a weld deposit with excellent compressive strength capable of absorbing heavy impact and/or compressive loads. It can be applied in multiple layers without cracking, spalling, or mushrooming. It is machinable in the as-welded condition with reasonable procedural care and can be forged at red heat. It is not recommended for manganese steel or cast iron and does not work harden. It should not be used for joining.	Abrasion Resistance: Low Impact Resistance: Good Hardness on Carbon Steel: 1 Layer HRC 27 2 Layers HRC 29 3 Layers HRC 31 Tensile Strength: 118,000 psi Yield Strength: 113,000 psi Elongation: 6% Deposit Layers: Unlimited Magnetic: Yes Machinability: Poor	Tractor and Shovel Idlers Machine Shafts Clevis Pins Steel Shovel Pads Gear Teeth Sprockets

45150850	\$297.00	1/8" x 14"	60lb.	100 - 160 Flat / Horz.
45150810	\$51.10	1/8" x 14"	10lb.	100 - 160 Flat / Horz.
45150810-1	\$9.90	1/8" x 14"	1lb.	100 - 160 Flat / Horz.
45151050	\$268.00	5/32" x 14"	60lb.	140 - 200 Flat / Horz.
45151010	\$49.50	5/32" x 14"	10lb.	140 - 200 Flat / Horz.
45151010-1	\$9.50	5/32" x 14"	1lb.	140 - 200 Flat / Horz.
45151250	\$232.68	3/16" x 14"	60lb.	170 - 225 Flat
45151210	\$42.78	3/16" x 14"	10lb	170 - 225 Flat
45151650	\$219.36	1/4" x 18"	60lb.	230 - 330 Flat
11498800	\$40.33	1/4" x 18"	10lb.	230 - 330 Flat

excellent impact strength. It has a high deposition rate and work hardens under impact. Deposits can be flame cut. It is designed for build up and joining of manganese steels and is not recommended for buildup of carbon steels. There is no limit to deposit thickness. When welding, the interpass temperature should not exceed 500°F.

An Austenitic manganese steel electrode with

Abrasion Resistance: Moderate Impact Resistance: ... Excellent Hardness; as Deposited: .. 200 HB Work Hardened:HRC 52 Tensile Strength: ... 120,000 psi Yield Strength:.....70,000 psi Elongation: 42% Deposit Layers:Unlimited

Surface Cross Checks:No

Machinability:Poor

Magnetic: ..

Railroad Frogs and Crossings Crusher Equipment Parts Manganese Steel Castings Wobbler Spindles Coupling Boxes

Build-Up & Joining Of Manganese Steel, AC or DC+

2110 Austenitic Chromium Manganese Steel (Alloy 31%) Manganese, Chromium, Nickel, Carbon, Silicon

11431300	\$81.60	1/8" x 14"	10lb.	100 - 130Flat/Horiz.
11431300-1	\$15.90	1/8" x 14"	1lb.	100 - 130 Flat
10202800	\$67.67	5/32" x 14"	10lb.	125 - 190 Flat
10202800-1	\$13.90	5/32" x 14"	1lb.	125 - 190 Flat
10202900	\$61.50	3/16" x 14"	10lb.	150 - 260 Flat
10203000	\$60.67	1/4" x 18"	10lb.	240 - 325 Flat

Build-Up & Joining Of Carbon & Manganese Steel, AC or DC+ A solid core electrode designed for build-up of austenitic manganese parts subject to high impact loading. It is a modified high chromium - high manganese steel that combines toughness and wear resistance. There is no limitation on deposit thickness Stoody 2110 is not recommended for cast iron. It can be used on carbon steel or manganese steel base metal

Abrasion Resistance:Good Impact Resistance: ... Excellent Hardness; As Deposited: On Carbon Steel 200 HB Work Hardened: On Manganese Steel ..HRC 50 - 55 Tensile Strength: ... 119,000 psi Yield Strength:.....76,400 psi Elongation: 40% Deposit Layers:Unlimited Surface Cross Checks: . Machinability: With Carbide Magnetic:No

Shovel Pads Hammers Grate Bars Switch Points Roll Crushers Shovel Teeth Carbon or Manganese Steel Frogs Manganese Steel Components

GROUP 2 – Metal-To-Metal Wear – Iron Base

1105 Low Alloy (5%) - Chromium, Manganese, Silicon, Molybdenum, Vanadium, Carbon

11345100	\$63.22	1/8" x 14"	10lb. Vac	80 - 150 Flat
11345100-1	\$12.95	1/8" x 14"	1lb.	80 - 150 Flat
11173800	\$53.56	5/32" x 14"	10lb. Vac	140 - 210 Flat
11173800-1	\$10.95	5/32" x 14"	1lb.	140 - 210 Flat
11173900	\$52.25	3/16" x 14"	10lb. Vac	165 - 250 Flat
11173900-1	\$10.50	3/16" x 14"	1lb.	165 - 250 Flat

Hard Surfacing Of Carbon & Low Alloy Steel, DC+ A solid core electrode designed for wear resistance in metal-to-metal applications. It has an extruded coating containing the alloying elements. It provides good weldability and a high deposition rate. It bonds readily to carbon and low alloy steels and is not recommended for manganese steels or cast irons. It is forge able at red heat. Hot wear applications up to 600°F

Abrasion Resistance: Impact Resistance: .. Moderate As Deposited: On Carbon Steel Work Hardened: On Manganese Steel ..HRC 50 - 55 Machinability:With Carbide • Churn Drills Tools Magnetic:

Tractor Rollers and Idlers Shovel Roller and Idlers Drive Tumblers Charging Car Wheels Wobblers

GROUP 3 – Metal-To-Earth Moderate and/or Severe Wear – Iron Base

19 Chromium Carbides in an Semi-Austenitic Matrix (26%) - Chromium, Carbon, Molybdenum, Manganese, Silicon

11356000	\$63.25	1/8" x 14"	10lb. Vac	90 - 130 Flat / Hor
11356000-1	\$11.95	1/8" x 14"	1lb.	90 - 130 Flat / Horz
11356700	\$58.89	5/32" x 14"	10lb. Vac	120 - 160 Flat
11356700-1	\$10.90	5/32" x 14"	1lb.	120 - 160 Flat
11356800	\$53.10	3/16" x 14"	10lb. Vac	140 - 220 Flat
11173100	\$61.00	1/4" x 18"	10lb. Vac.	175 - 300 Flat

Hard Surfacing & Impact Of Carbon & Alloy Steel, AC or DC+ A solid core hardfacing electrode with easy slag removal. It has a moderate alloy content, providing a balanced performance on abrasion resistance and impact. It has an extruded coating containing the alloying elements. Deposits are not machinable or forgeable. Stoody 19 bonds well with carbon, low alloy, and manganese steels. Deposits are slightly magnetic on carbon and low alloy steels, but not on manganese steels, and will develop crosschecks. A severe water quench should be avoided.

Abrasion Resistance:Good • Crusher Rolls Impact Resistance: .. Moderate Hardness w/2 Layers Deposited on 1045 Steel:HRC 51 - 55 Manganese Steel: HRC 45 - 49 Deposit Layers: Up to 2

Surface Cross Checks: Yes

Machinability:

Magnetic:

Deposit Layers:

Machinability: Magnetic:

Impact Breaker Bars Dredge Pump Shells and Impellers Scrapers

21 Eutectic Chromium Carbides in an Austenitic Matrix (23%) - Chromium, Carbon, Silicon, Manganese, Molybdenum

11172700	\$71.67	1/8" x 14"	10lb.	90 - 130 Flat
11172700-1	\$13.95	1/8" x 14"	1lb.	90 - 130 Flat
11172900	\$64.45	5/32" x 14"	10lb.	120 - 160 Flat
11172900-1	\$11.90	5/32" x 14"	1lb.	120 - 160 Flat
11173000	\$63.20	3/16" x 14"	10lb.	140 - 220 Flat

Hard Surfacing & Impact Of Cast Iron, Carbon & Alloy Steel, AC or DC+ A tubular electrode with good impact and abrasion characteristics. Deposits are not machinable or forgeable. Stoody 21 bonds well with carbon, low alloy, and manganese steels. Deposits are slightly magnetic on carbon and low alloy steels, but not on manganese steels, and will develop cross checks. A severe water quench should be avoided.

Abrasion Resistance:Good • Compactors Impact Resistance: .. Moderate • Mill Hammers Hardness w/2 Lavers Deposited on 1045 Steel:

Surface Cross Checks: Yes

Buckets and ...HRC 46-50 Dredge Pumps Manganese Steel: ..HRC 52-56 Up to 2

. Slightly

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