

## Cobalarc Hardfacing Electrodes

### Cobalarc Austex

HV<sub>30</sub>  
400

50  
ocv

AC  
DC



- Metal Enriched, Rutile Type Electrode.
- For Joining Dissimilar steels or as a Buffer Layer Prior to Hard Surfacing.
- Tough, Machinable Austenitic Stainless Steel Deposit.

NOTE: 3.2mm size can be used for vertical welding by depositing overlapping horizontal stringer passes.

**Typical All Weld Metal Deposit Analysis:**  
C: 0.10% Mn: 1.50% Si: 0.90%  
Cr:24.5% Ni: 9.3%

**Finishing Recommendations:**  
Machinable with carbide tools

**Typical Weld Deposit Hardness:**

	HRC	HV <sub>30</sub>
All weld metal deposit	20	240
Hardness	40	400

#### Classifications:

AS/NZS 2756:	1315-A4
WTIA Tech. Note 4:	1315-A4

#### Packaging and Operating Data:

Electrode		Approx No. Rods/kg	Current Range (amps)	Packet	Carton	Part No
Size mm	Length mm					
3.2	380	20	105 – 140	5kg	15kg - 3 x 5kg	613973
4.0	380	13	140 – 180	5kg	15kg - 3 x 5kg	613974
5.0	450	7	170 – 210	5kg	15kg - 3 x 5kg	613975

AC (minimum 50 OCV) DC+ or DC- polarity.

### Cobalarc Mangcraft

HV<sub>30</sub>  
425

55  
ocv

AC  
DC



- Austenitic Manganese Steel Electrode.
- For Building Up & Reinforcing 11-14% Manganese Steels.
- Tough and Impact Resistant Weld Deposit.
- Work Hardens Under Heavy Impact.

**Typical All Weld Metal Deposit Analysis:**  
C: 0.60% Mn: 12.0% Si: 0.10%

**Finishing Recommendations:**  
Machinable with carbide tools

**Typical Weld Deposit Hardness:**

	HRC	HV <sub>30</sub>
All weld metal deposit	15	–
Hardness	43	425

**Comparable CIGWELD products:**  
Stoody Dynamang-O tubular wire

#### Classifications:

AS/NZS 2756:	1215-A4
WTIA Tech. Note 4:	1215-A4

#### Packaging and Operating Data:

Electrode		Approx No. Rods/kg	Current Range (amps)	Packet	Carton	Part No
Size mm	Length mm					
4.0	380	17	130 – 170	5kg	15kg - 3 x 5kg	611504
5.0	450	10	150 – 200	5kg	15kg - 3 x 5kg	611505

AC (minimum 55 OCV) DC+ or DC- polarity.

### Cobalarc 350

HV<sub>30</sub>  
350

55  
ocv

AC  
DC



- Metal Enriched, Rutile Type Electrode.
- For Re-building Worn Steel Components.
- Tough, Machinable Low Carbon Martensitic Steel Deposit.
- For the manual arc build-up and surfacing of steel gear, shafts, rails, shovel pads, track links, rolls and wheels etc.

NOTE: 3.2mm and 4.00mm sizes can be used for vertical welding by depositing overlapping horizontal stringer passes.

**Typical All Weld Metal Deposit Analysis:**  
C: 0.07% Mn: 0.85% Si: 0.30%  
Cr:1.85% Mo: 0.5%

**Finishing Recommendations:**  
Machinable

**Typical Weld Deposit Hardness:**

	HRC	HV <sub>30</sub>
Single layer on mild steel	28	290
All weld metal deposit	35	350

**Comparable CIGWELD products:**  
Stoody Super Build-up G/O tubular wire  
AS/NZS 2576: 1435-B5

#### Classifications:

AS/NZS 2756:	1435-A4
WTIA Tech. Note 4:	1435-A4

#### Packaging and Operating Data:

Electrode		Approx No. Rods/kg	Current Range (amps)	Packet	Carton	Part No
Size mm	Length mm					
3.2	380	26	100 – 150	5kg	15kg - 3 x 5kg	611443
4.0	380	17	140 – 200	5kg	15kg - 3 x 5kg	611444

AC (minimum 55 OCV) DC+ or DC- polarity.

# Cobalarc Hardfacing Electrodes

## Cobalarc 650

HV<sub>30</sub>  
640

55  
ocv

AC  
DC



- Metal Enriched, Rutile Type Electrode.
- For Re-building or Surfacing Worn Steel Components.
- Air Hardening, Crack Free, Martensitic Steel Deposit.
- Typical applications include the surfacing of agricultural points, shares and tynes, grader and dozer blades, conveyor screws and post hole augers etc.

**Typical All Weld Metal Deposit Analysis:**  
C: 0.58% Mn: 1.1% Si: 0.6%  
Cr:5.3% Mo: 0.25%

**Finishing Recommendations:**  
Not machinable - Grinding only

**Typical Weld Deposit Hardness:**

	HRC	HV30
Single layer on mild steel	55	600
All weld metal deposit	57	640

**Comparable CIGWELD products:**  
Stoody 965 G/O tubular wire  
AS/NZS 2576: 1855-B5/B7  
  
Stoody 850-0 tubular wire  
AS/NZS 2576: 1865-B5/B7

### Classifications:

AS/NZS 2756:	1855-A4
WTIA Tech. Note 4:	1855-A4

### Packaging and Operating Data:

Electrode Size mm	Length mm	Approx No. Rods/kg	Current Range (amps)	Packet	Carton	Part No
3.2	380	31	105 – 135	5kg	15kg - 3 x 5kg	611463
4.0	380	21	140 – 180	5kg	15kg - 3 x 5kg	611464

AC (minimum 55 OCV) DC+ or DC- polarity.

## Cobalarc 750

HV<sub>30</sub>  
720

45  
ocv

AC  
DC



- Rutile type, AC/DC Hard Surfacing Electrode.
- Easy Arc Starting and Stable Running on Portable AC Welding Sets (45 O.C.V.).
- Air Hardening, Crack Free, Martensitic Steel Deposit.
- Typical applications include the surfacing of agricultural equipment and components including points, shares, post hole augers, rupper teeth & tynes etc.

NOTE: 3.2mm & 4.0mm sizes can be used for vertical welding by depositing overlapping horizontal stringer passes.

**Typical All Weld Metal Deposit Analysis:**  
C: 0.60% Mn: 0.46% Si: 0.75%  
Cr:5.9% Mo: 0.40%

**Finishing Recommendations:**  
Not machinable - Grinding only

**Typical Weld Deposit Hardness:**

	HRC	HV30
Single layer on mild steel	64	800
Two layers on mild steel*	62	750

**Comparable CIGWELD products:**  
Cobalarc 650 manual arc electrode  
AS/NZS 2576: 1855-A4  
  
Stoody 965 G/O tubular wire  
AS/NZS 2576: 1855-B5/B7

\*Not recommended for multi-pass welding heavier than 3 layers

Stoody 850-0 tubular wire  
AS/NZS 2576: 1865-B5/B7

### Classifications:

AS/NZS 2756:	1860-A4
WTIA Tech. Note 4:	1860-A4

### Packaging and Operating Data:

Electrode Size mm	Length mm	Approx No. Rods/kg	Current Range (amps)	Packet	Carton	Part No
3.2	380	26	95 – 130	5kg	15kg - 3 x 5kg	611473
4.0	380	17	120 – 170	5kg	15kg - 3 x 5kg	611474

### Easyweld Blister Pack:

10 x 3.2mm rod Cobalarc 750 Blister Pack 322218

AC (minimum 45 OCV) DC+ or DC- polarity.

## Cobalarc Toolcraft

HV<sub>30</sub>  
700

55  
ocv

AC  
DC



- Versatile Manual Arc Welding Electrode.
- Secondary Hardening, Shock Resistant Properties.
- Crack Free Cr-Mo Steel Deposit for Repairing Blades, Dies, Punches etc.
- Also Suitable for General Hard Surfacing in Low Stress Abrasion Conditions.

NOTE: 3.2mm size can be used for vertical welding by depositing overlapping horizontal stringer passes.

**Typical All Weld Metal Deposit Analysis:**  
C: 0.58% Mn: 0.10% Si: 0.20%  
Cr:5.5% Mo: 6.8%

**Finishing Recommendations:**  
Not machinable - Grinding only

**Typical Weld Deposit Hardness:**

	HRC	HV30
Single layer on mild steel	55	600
All weld metal deposit	60	700

### Classifications:

AS/NZS 2756:	1560-A4
WTIA Tech. Note 4:	1560-A4

### Packaging and Operating Data:

Electrode Size mm	Length mm	Approx No. Rods/kg	Current Range (amps)	Packet	Carton	Part No
2.5	300	58	65 – 90	20 rod	–	322115
3.2	380	28	90 – 125	5kg	15kg - 3 x 5kg	611523

AC (minimum 55 OCV) DC+ or DC- polarity.

# Cobalarc Hardfacing Electrodes

## Cobalarc CR70

HV<sub>30</sub>  
650

50  
ocv

AC  
DC



- Highly Alloyed Manual Arc Electrode.
- High Chromium Carbide Iron Deposit.
- Primary Chromium Iron Carbides in a Single Layer.
- Ideal for Coarse Abrasion and Low to Moderate Impact Loading.
- Typical applications of Cobalarc CR70 include the hard surfacing of crusher cones and mantles, swing hammers, bucket teeth and lips, dozer end plates and sugar mill rolls etc.

NOTE: 3.2mm and 4.00mm sizes can be used for vertical welding by depositing overlapping horizontal stringer passes.

### Classifications:

AS/NZS 2756:	2355-A4
WTIA Tech. Note 4:	2355-A4

### Typical Weld Deposit Analysis:

Single Layer on Mild Steel  
C: 3.3% Mn: 1.5% Si: 1.0% Cr: 25%  
All Weld Metal Deposit  
C: 4.0% Mn: 1.8% Si: 1.2% Cr: 31%

### Typical Weld Deposit Hardness:

	HRC	HV <sub>30</sub>
Single layer on mild steel	55	600
All weld metal deposit	59	690

Deposits contain Chromium Carbide with hardness up to 1,500 HV.

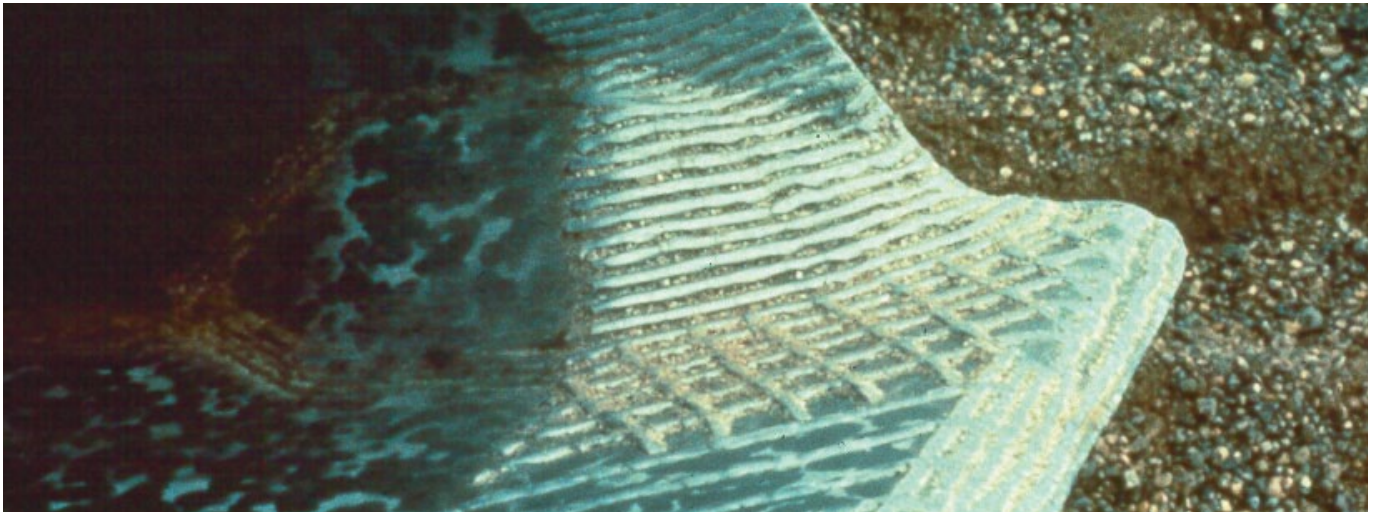
**Finishing Recommendations:**  
Grinding only

**Comparable CIGWELD products:**  
Stoody 101 HC-G/O tubular wire  
AS/NZS 2576: 2360-B5/B7

### Packaging and Operating Data:

Electrode Size mm	Length mm	Approx No. Rods/kg	Current Range (amps)	Packet	Carton	Part No
3.2	380	18	90 – 140	5kg	15kg - 3 x 5kg	613493
4.0	380	11	130 – 200	5kg	15kg - 3 x 5kg	613494
5.0	450	6	180 – 250	5kg	15kg - 3 x 5kg	613495

AC (minimum 50 OCV) DC+ or DC- polarity.



## Cobalarc BoroChrome

HV<sub>30</sub>  
700

50  
ocv

AC  
DC



- Highly Alloyed Manual Arc Electrode.
- Martensitic Chromium Carbide Iron Deposit.
- Ideal for Fine Particle (Wet or Dry) Abrasion and Low Impact Loading.
- Primary Chromium Iron Carbides in a Hard, Martensitic Matrix.
- Typical applications include the hard surfacing of sand chutes, dredge components, ripper shanks, screens, grizzly bars, scraper blades and bucket lips and teeth.

### Classifications:

AS/NZS 2756:	2560-A4
WTIA Tech. Note 4:	2560-A4

### Typical Weld Deposit Analysis:

Single Layer on Mild Steel  
C: 2.7% Mn: 0.4% Si: 1.8%  
Cr: 20.0% V: 1.4% B: 1.0%  
All Weld Metal Deposit  
C: 3.2% Mn: 0.4% Si: 2.4%  
Cr: 24.0% V: 1.7% B: 1.2%

### Typical Weld Deposit Hardness:

	HRC	HV <sub>30</sub>
Single layer on mild steel	58	660
All weld metal deposit	60	700

Deposits contain Chromium Carbide with hardness up to 1,500 HV.

**Finishing Recommendations:**  
Grinding only

**Comparable CIGWELD products:**  
Stoody Fineclad-O tubular wire  
AS/NZS 2576: 2565-B7

### Packaging and Operating Data:

Electrode Size mm	Length mm	Approx No. Rods/kg	Current Range (amps)	Packet	Carton	Part No
4.0	380	11	140 – 180	5kg	15kg - 3 x 5kg	613964
5.0	450	6	170 – 210	5kg	15kg - 3 x 5kg	613965

AC (minimum 50 OCV) DC+ or DC- polarity.

# Cobalarc Hardfacing Electrodes

## Cobalarc 1e

HV<sub>30</sub>  
720

55  
ocv

AC  
DC+



- Highly Alloyed Extruded Electrode.
- High Chromium Carbide Iron Deposit.
- Ideal for Coarse Abrasion and Low to Moderate Impact Loading.
- For wear resistant overlays on austenitic manganese steels.

### Classifications:

AS/NZS 2756:	2360-A4
WTIA Tech. Note 4:	2360-A4

### Typical All Weld Deposit Analysis:

C: 5.00% Mn: 1.10% Si: 1.3%  
Cr: 35.0%

### Typical Weld Deposit Hardness:

	HRC	HV <sub>30</sub>
Single layer on mild steel	58	660
All weld metal deposit	61	730

Deposits contain complex Chromium  
Carbides with hardness up to 1,500 HV.

### Finishing Recommendations:

Grinding only

### Comparable CIGWELD products:

Cobalarc CR70 extruded electrode  
AS/NZS 2576: 2355-A4  
Stoody 100 HC-G/O tubular wire  
AS/NZ 2576: 2360-B7

### Packaging and Operating Data:

Electrode Size mm	Length mm	Approx No. Rods/kg	Current Range (amps)	Packet	Carton	Part No
4.0	380	10	130 – 190	5kg	15kg - 3 x 5kg	613210
5.0	450	5	170 – 260	5kg	15kg - 3 x 5kg	613235

AC (minimum 55 OCV) DC+ or DC- polarity.

## Cobalarc 9e

HV<sub>30</sub>  
750

55  
ocv

AC  
DC+



- Highly Alloyed Extruded Electrode.
- Versatile, Complex Carbide Iron Deposit.
- Resistant to both Coarse and Fine Abrasion and Moderate to Heavy Impact Loading.
- Typical applications include the hard surfacing of railway ballast tampers, dredge buckets and lips, earth moving equipment, power shovels, rolling mill guides, sizing screens, ripper teeth and crushing equipment.

### Classifications:

AS/NZS 2756:	2460-A4
WTIA Tech. Note 4:	2460-A4

### Typical All Weld Deposit Analysis:

C: 4.8% Mn: 1.1% Si: 1.4%  
Cr: 30.0% Ni: 0.5% Mo: 1.7% V: 0.2%

### Typical Weld Deposit Hardness:

	HRC	HV <sub>30</sub>
Single layer on mild steel	58	660
All weld metal deposit	63	780

Deposits contain complex Chromium  
Carbides with hardness up to 1,500 HV.

### Finishing Recommendations:

Grinding only

### Comparable CIGWELD products:

Stoody 143-0

### Packaging and Operating Data:

Electrode Size mm	Length mm	Approx No. Rods/kg	Current Range (amps)	Packet	Carton	Part No
3.2	380	17	95 – 145	5kg	15kg - 3 x 5 kg	613350
4.0	380	10	130 – 190	5kg	15kg - 3 x 5kg	613360
5.0	450	5	170 – 260	5kg	15kg - 3 x 5kg	613370

AC (minimum 55 OCV) DC+ or DC- polarity.