



HARDWELD-250

CHARACTERISTICS :

A medium heavy coated, rutile type, hardfacing electrode. Weld deposit is air hardening type and can withstand heavy impact load. It gives machinable weld deposit of approx. 250 BHN hardness. To be used with buffer layer of Premier-7016 on hard base material. Recommended for hardfacing on Mild Steel, Carbon steel & Low Alloy Steels.

APPLICATIONS :

The weld metal is hard, tough and easily machinable. It is used for Repair and Filling up worn out machine parts, Gear Teeth, Shaft Couplings, Mill Guide Plates, Pulleys, Axles, Clutches, Sugar Cane Crushers, Rail Ends and Crossing etc.

TYPICAL WELDMETAL COMPOSITION :

Element	Percent
C	0.20-0.30
Mn	0.25-0.60
Si	0.15-0.25
Cr	0.50-1.00

CURRENT RANGE & PACKING DATA :

Size MM DxL	Current (Amps) AC or DC (-)	Pieces per Packet	Pieces per Carton
5.00x450	170-210	65	260
4.00x450	130-160	95	380
3.15x450	90-110	150	600

HARDNESS :240-280 BHN approximately on 3 layer deposit.

HARDWELD-350

CHARACTERISTICS :

A medium heavy coated, rutile base, air hardening type electrode for hardfacing on mild steel, carbon steel & low alloy steel. Weld deposit is machinable, resistant to moderate abrasion & heavy impact and has hardness of 350 BHN. On hard base material give buffer layer of Premier-7016.

APPLICATIONS :

Brake shoes, Shafts, Axles, Conveyor parts, Cams, Wobbler ends, Elevator buckets, Pulleys, shear blades, Cold punching dies etc.

TYPICAL WELDMETAL COMPOSITION :

Element	Percent
C	0.20-0.30
Mn	0.25-0.60
Si	0.15-0.25
Cr	0.75-1.50

CURRENT RANGE & PACKING DATA :

Size MM DxL	Current (Amps) AC or DC (-)	Pieces per Packet	Pieces per Carton
5.00x450	170-230	65	260
4.00x450	130-170	95	380
3.15x450	100-130	150	600

HARDNESS :340-380 BHN approximately on 3 layer deposit.

HARDWELD-350 (LH)

CHARACTERISTICS :

A medium heavy coated, basic type, hydrogen controlled electrode for hardfacing applications on mild steel, carbon steel and low alloy steels where hardness requirement is approximately 300 BHN. The weldmetal is machineable with carbide tools.

APPLICATIONS :

Hot & cold punching dies, Shear blades, Brake shoes, rail ends & crossings, Conveyor parts, Steel castings, Pulleys and Axles etc.

TYPICAL WELDMETAL COMPOSITION :

Element	Percent
C	0.20-0.30
Mn	0.25-0.50
Si	0.50-0.75
Cr	0.85-1.25

CURRENT RANGE & PACKING DATA :

Size MM DxL	Current Range (Amps) AC (70V) or DC (+)	Pieces per Packet	Pieces per Carton
5.00x450	180-240	45	180
4.00x450	140-180	80	320
3.15x450	100-140	110	440

HARDNESS :300-350 BHN approximately on 3 layer deposit.

HARDWELD-V

CHARACTERISTICS :

A medium heavy coated, rutile base, air hardening type hardfacing electrode. Gives weld deposit of 500 BHN. Weld is non-machinable but can be ground. It is resistant to severe abrasion & moderate impact. Two or three layer deposits are recommended as the first layer may not develop the full hardness due to dilution. Recommended for Mild Steel, structural steel & cast steels.

APPLICATIONS :

Reinforcing worn rails, Crane wheels, Wornout parts of Earth moving equipments, Bamboo chipper knives, Sprockets, Shears & Croppers, Muller tyres, Ploughshares, Drill bits, Mine rails, Oil expellers, Caterpillar threads etc.

TYPICAL WELDMETAL COMPOSITION :

Element	Percent
C	0.50-0.75
Mn	0.60-1.00
Si	0.50-0.75
Cr	3.0-4.0

CURRENT RANGE & PACKING DATA :

Size MM DxL	Current (Amps) AC or DC (-)	Pieces per Packet	Pieces per Carton
5.00x450	160-200	65	260
4.00x450	120-160	80	320
3.15x450	90-120	150	600

HARDNESS :480-530 BHN approximately on 3 layer deposit.



HARDWELD-600

CHARACTERISTICS :

A medium heavy coated, rutile base, air hardening type electrode for hardfacing applications on mild steel, carbon steel and low alloy steels. It gives non machineable 600 BHN hardness deposits which can only be ground. The weld deposit is suitable for abrasion and impact.

APPLICATIONS :

Crusher hammers, Mine rails, Cane & Bamboo cutting knives, Oil expellers, Drill bits, Metal cutting and forming tools etc.

TYPICAL WELDMETAL COMPOSITION :

Element	Percent
C	0.40-0.65
Mn	0.80-1.00
Si	0.50-0.75
Cr	4.00-6.00
Mo	0.50-0.70

CURRENT RANGE & PACKING DATA:

Size MM DxL	Current (Amps) AC or DC (-)	Pieces per Packet	Pieces per Carton
5.00x450	170-210	65	260
4.00x450	120-170	95	380
3.15x450	90-120	150	600

HARDNESS : 560-600 BHN approximately on 3 layer deposit.



HARDWELD-600 (LH)

CHARACTERISTICS :

A medium heavy coated, low hydrogen, air hardening type hardfacing electrode. It gives non-machinable hard deposits of 600 BHN. The low hydrogen coating enables its use on high carbon/sulphur steels without under bead cracking or porosity. It yields hard surface deposits, resistant to heavy-abrasion and moderate impact. When a heavy deposit is required, the initial and intermediate layers may be deposited with Premier-7016 using Hardweld 600 (LH) for final two or three layers.

APPLICATIONS :

Hot & cold punching dies, Oil expellers, Worms, Pan mixer blades, Dredger bucket lips, Drill bits, Caterpillar threads, Punches, Dies, Dipper teeth, Disintegrator Hammers, Sprockets, Cane & Bamboo cutting knives etc.

TYPICAL WELDMETAL COMPOSITION :

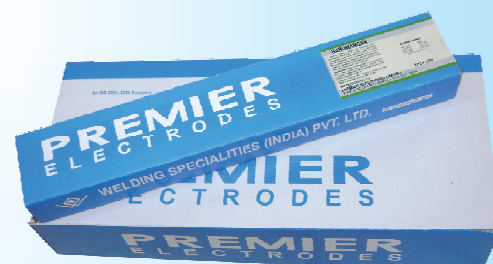
Element	Percent
C	0.40-0.65
Mn	1.00-1.25
Si	0.50-0.75
Cr	4.00-6.00
Mo	0.70-1.10
V	0.40-0.80

CURRENT RANGE & PACKING DATA:

Size MM DxL	Current (Amps) AC or DC (-)	Pieces per Packet	Pieces per Carton
5.00x450	170-210	45	180
4.00x450	120-170	80	320
3.15x450	90-120	110	440

HARDNESS :

550-640 BHN approximately on 3 layer deposit.





HARDMANGAN

CHARACTERISTICS :

A medium heavy coated, low hydrogen type hardfacing electrode. It gives 11-14% austenitic manganese steel weld deposit which work hardens in service from 200 BHN to 500 BHN. It has excellent resistance to wear by impact. Recommended for abrasion resistant hardfacing of Manganese Steel, Cast & Mild Steel.

APPLICATIONS :

Filling up worn out parts such as Rock Crushing Jaws, Dredger Bucket Teeth, Rail Crossovers, Cement Grinder Rings, Austenitic Manganese Steel Castings, Muller Tyres, Manganese Steel Rails, various parts of Earth moving equipments.

TYPICAL WELDMETAL COMPOSITION :

Element	Percent
C	0.65-1.00
Mn	11.00-14.00
Si	0.25-0.65
Cr	1.50-2.00
Ni	2.00-2.50

CURRENT RANGE & PACKING DATA:

Size MM DxD	Current (Amps) AC (70V) or DC (+)	Pieces per Packet	Pieces per Carton
5.00x450	170-220	45	180
4.00x450	140-170	80	320
3.15x450	100-120	110	440

HARDNESS :

As deposited 200 BHN approximately.
Increase to 500 BHN under impact in service.

Instructions for All "Hardfacing" Products :

- Hold Short Arc.
- Use Medium Current.
- Store electrodes in warm dry place.
- Redry at 150°C for 30 minutes before use.
- Use suitable buffer layer and preheating depending on material composition.

