Igniting Solutions™

D & H INDIA LIMITED

Formerly 'D & H Welding Electrodes (India) Ltd'

Hard Facing Welding Electrodes

New Generation Hard Facing Electrodes with Reliable Weld Quality

Hard Facing Welding Electrodes

BRAND NAME	TYPICAL CHEMICAL COMPOSITION(%)								HARDNESS	DESCRIPTION	APPLICATIONS
	C	Mn	Si	Cr	Ni	Mo	V	W			
DUROBUILD-A	0.18	0.76	0.42	2.00					250-300 BHN	Medium coated rutile type hard facing electrode. Weld deposit is an air hardening type carbon chromium alloy which has high degree of toughness and excellent resistance to rolling and sliding friction and heavy impact, weld metal is machinable.	Important applications are gear teeth, rail-ends and crossing, shaft, mill guide plates, pulley, clutches, wheel, axles, couplings, sprockets, pinion etc.
DUROBUILD-B	0.20	0.70	0.40	3.25					340-400 BHN	Medium coated rutile type hard facing electrode depositing air hardening type carbon chromium alloy weld metal. Weld deposit is machinable and resistant to moderate abrasion and heavy impact.	Ideal electrode for building up of worn out surfaces of tractor track-links, drive sprockets, tractor wheels, steel mill rolls, crane wheel, brake shoes, shear blades, roll wobblers etc.
DUROBUILD-B (LH)	0.22	0.85	0.50	3.40					350-400 BHN	Medium heavy coated low hydrogen type electrode producing carbon chromium air hardening alloy weld metal. Deposited metal is machinable and resistant to moderate abrasion and heavy impact.	Important applications are hard facing of mild steel and low alloy steel components, rollers, rail ends and crossing, couplings, shear blades, shaft, axles, pulleys, gear brake shoes, cold punching dies, conveyor parts etc.
DUROBUILD-C	0.50	0.70	0.70	7.00	-	0.80	0.50		500-600 BHN	Basic coated hard facing electrode, depositing hard and non machinable chromium - molybdenum. Vanadium alloyed air hardening type weld deposit which has excellent resistance to severe abrasion and heavy impact.	Very useful in reclaiming costly worn out machine parts. Typical applications are churn drill bits, dipper shovel & lips, cane cutting knives, crusher hammers, shear blades, drag line buckets lips, crusher jaws etc.
DUROMANGAN	0.80	14.50	0.50						As welded 200-250 BHN Work hardens (under impact) to 500 BHN	Basic coated low hydrogen electrode producing 14% Mn Weld metal. The weld surface hardens readily by impact and pressure.	Highly suitable for application involving heavy impact and abrasion, Typical applications are crusher jaws and hammers, minerals grinder, mental, buckets teeth and lips, rail crossing, manganese steel casting of all type.
THERMOHARD	2.50	1.40	0.50	2.80					500-600 BHN	Graphite based hard facing electrode with pleasing operating characteristics on AC as well as on DC(+)welding current. Deposited metal is air hardening type carbon chromium alloy, which has excellent resistance to heavy abrasion and moderate impact.	Important applications are oil expeller worms, excavator teeth, ploughshare, crusher cones and jaws, scraper blades and various parts of conveyor.
THERMODUR-600	1.90	0.90	0.60	20.5					52-6OHRC	Heavy coated electrode with easy performance characteristics on AC as well as on DC (+). The electrode depositing hard chromium carbide rich weld metal, having exceptional resistance to heavy abrasion and moderate impact even at temperature up to 500°C.	Useful on wide variety of applications to enhance resistance to Severe abrasion, corrosion and oxidation. Important applications are rolling mill guides, cane cutting knives, pump casting and Impellers, tractor grousers, drag line bucket lips, plough shares, coal crushing hammers etc.
THERMODUR-600 (SPL)	3.00	1.00	1.00	29.00	4.00				50-58 HRC At 550°C 45-48 HRC	Super heavy coated hard facing electrode designed to withstand severe abrasion and impact at elevated temperature. The weld metal retains its hardness up to 550°C.	Ideally suited for applications where abrasion and high temperature corrosion condition exists as in blast furnace bells and hoppers, steel mill equipments, foundry parts, furnace rollers, coal handling equipments etc.
SV-60	0.60	0.40	0.45	6.80					600-700 BHN	Medium coated rutile type hard facing electrode specially designed for hard facing applications involving severe abrasion and moderate impact. Weld metal is carbon chromium air hardening alloy.	Important applications are ploughshares, excavator teeth, dredger bucket lips, conveyor bucket and such other parts subjected to friction and abrasion.
HARDCHROM	3.04	0.41	1.43	28.37	-	-	1.27		60-61 HRC	Specially designed electrode for surfacing applications where resistance to corrosion, erosion, oxidation, severe abrasion with mild impact specially at elevated temperature are important. The weld deposit retains hardness upto 550°C and resists scaling up to 1000°C.	Ideally suited for tube mill and rolling mill guide, coke chutes, blast furnace bells & hoppers, foundry parts, hot shears, sand blasting equipments, ceramic handling equipment, and in mining agriculture and earth moving equipments.
CROMAX	0.11	4.50	0.50	16.50					As welded 200-250 BHN work hardens (under impact) to 550 BHN	Heavy coated electrode, producing 16Cr - 4Mn weld deposit having excellent work hardenability along with high corrosion resistance.	Ideally suited for surfacing applications involving severe impact combined with abrasion and corrosion, it is also suited for buffer layer before putting final layer of air hardening weld metal. Other applications are surfacing manganese steel rails, point and crossing mill hammer, muller tyre, crusher hammer and jaws, mining equipments, dredging equipments etc.
CRONIMANGAN	0.09	5.00	0.55	19.00	9.00				As welded 200-250 BHN work hardens (under impact) to 500 BHN	Heavy coated austenitic stainless steel electrode giving 19Cr- 9Ni - 5Mn weld deposit which work hardens rapidly under impact and gives it needed abrasion resistance.	Ideally suited for buffer and build up layer for crusher hammers, crusher mantles and cones, pulverize, plough and rolls, grousers, dipper teeth, clam shell bucket etc.
CRONIMANGAN-B	0.06	5.00	0.70	19.50	9.20				As welded 200 BHN work hardens (under impact) to 500-550 BHN	Basic coated low hydrogen type austenitic stainless steel electrode yielding a weld deposit of 19Cr- 9Ni - 5Mn which has excellent heat resistance properties up to 900°C and it work hardens rapidly under impact.	Ideally suited for joining Mn-Steel to mild steel, repairing cracks in Mn-steel casting, surfacing Mn-steel rails, buffer layer on variety of steels and for producing crack free joint in difficult steel, high alloy steel including armour plates etc.
TOOL HARD	0.90	0.50	0.50	4.20	-	8.50	0.90	1.10	As welded 50-60 HRC Tempered 62-66 HRC Annealed 25-30 HRC	Special purpose electrode for surfacing, overlay and hard facing of components made of high speed tool, tool steel & other steels to prolong their service life. The deposit is non-machinable and can be dressed by grinding.	Ideal for building up and surfacing worn cutting edges of lathe tools, milling cutter, twistdrill, broaching tools, dies, and for general surfacing application that require extreme hardness. It can be deposited straight on carbon steel as well as on high speed cutting steels exposed to high working temperature.
HF- 1600 SP	0.70	1.50	0.75	3.50	4.60	3.20	0.50		54-58HRC At 550°C 45-48 HRC	Basic coated low hydrogen type hard facing electrode. Specially designed for depositing alloy steel weld metal, which can resist severe abrasion and impact at elevated temperature up to 700°C.	Electrode is highly suitable on wide variety of applications in steel plants such as blast furnace bells and hoppers, tong pins roll etc.
HF-BFBH	0.45	2.40	1.60	7.40	-	1.25	-	1.50	55-58 HRC	Basic coated hard facing electrode depositing highly alloyed weld metal, which has excellent resistance to heavy impact and high temperature abrasion.	Exclusive electrode for hard facing of blast furnace bells and hoppers, hot shears, cutting knives, dies, crusher jaws, valve seats, tong pins etc.
HF - 1440	0.16	16.0	0.90	15.20	2.50	0.50	0.20	-	As welded 200-220 BHN After work hardening - 500 BHN	Basic coated electrode depositing tough and easy work hardening stable austenite weld metal having high temperature abrasion and impact abrasion properties.	Highly suitable for welding 13% Mn steel, rail point and crossing, pipe subjected to high temperature and high pressure, hard surfacing of hot shear, forging moulds, hot forging dies.