

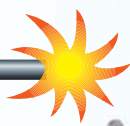
Dura-Metal[®]



ELECTRODES • WIRES • SILVER BRAZING • HARDFACING ALLOYS • WEAR PLATES



Dura-Metal®



One Company – Many High Performance Solutions



Dura-Metal® welding consumables are manufactured in the USA and distributed by companies worldwide. Our commitment to total customer satisfaction with product quality to all welding and coating needs has always been the company's philosophy. This has resulted in mutually rewarding cooperation with numerous industries. Namely: cement, steel, sugar, mining, oilfield, petrochemical, paper, glass, automotive, marine, refractory, power and advanced material industries.

In today's high-tech market place, it is acknowledged that a product brand is expected to measures up to modern standards of productivity, precision, cost-savings and performance measurement. The **Dura-Metal®** range of high quality maintenance & repair welding alloys and pre-fabricated wear parts have been researched and engineered for cost-effective and technically sound solutions to wear and tear problems.

Our products are manufactured in accordance with ISO 9002 procedures and other internationally recognised quality standard.

The following tabulated information exhibit various procedures, alloy group and application data related the **Dura-Metal®** range. Other custom made products are also available upon request.

Please feel free to contact us and our application engineer can assist you to select the solution best suited for your type of industrial application.

STICK ELECTRODES



PRODUCT	PRODUCT DESCRIPTION	CURRENT POLARITY	TENSILE STRENGTH (PSI)	ELONGATION %	HARDNESS
CAST IRON					
CI 205	FOR COLD WELDING OF CAST IRONS, ALLOY CAST IRONS, SG IRONS and these irons to steel. Excellent welding characteristics in all positions. The special flux coating gives sound dense welds on contaminated or poor quality castings. Machinable.	AC or DC+	73,000	20	180 HB
CI 212	TOP MACHINABILITY ON GREY IRONS. For joining thin walled cast iron sections without undercut or cracking. The soft arc avoids excessive dilution, hard spots and minimises the heat affected zone. Some Nihard parts have been successfully repaired using CI 212.	AC or DC-	65,000	30	150 HB
CI 214	ELECTRODE FOR REBUILDING OR RECLAIMING CAST IRON PARTS. Used extensively for foundry reclamation or large fill/build-up of castings. Good tensile, elongation and machinability.	AC or DC+	60,000	30	155 HB
CI 215	FOR BUTTERING OLD, DIRTY OR CONTAMINATED CAST IRON. An electrode for single layer coverage of oily, burnt or problem cast iron prior joining with the high strength electrodes Dura-Metal CI 205 or Dura-Metal CI 212. Dura-Metal CI 215 is hard and should not be used on areas that are to be drilled or machined.	AC or DC+	65,000	20	35 HRC
SURFACE PREPARATION					
Speedcut	FOR GOUGING ALL METALS. Special electrode for gouging, grooving and chamfering all metals. Due to the special coating, the arc blow is extremely powerful and removes at least three times its own volume of base metal leaving clean, ideally contoured grooves or preparations ready to weld. Great for cutting out old welds, bolts and bushes etc.	AC or DC-	-	-	-
ALUMINUM					
A 300	EASY TO USE PURE ALUMINUM ELECTRODE THAT DOUBLES AS A FLUX COATED TORCH BRAZING ALLOY. Special electrode for arc and torch welding aluminums alloyed with copper, silicon, and magnesium. Also excellent for joining dissimilar grades of aluminum such as A1, A1-Si Mg-Cu with excellent welding characteristics and easy slag removal. Weld smoothly at low amperage setting that all positional work can be achieved.	DC+	34,000	5	-
A 310	EASY TO USE ALUMINUM ELECTRODE. Special electrode for joining or surfacing all kinds of aluminum such as A1, A1-Si, A1-Si-Mg-Cu with excellent welding characteristics and easy slag removal. This material has been designed to give good shelf life without sacrificing welding performance. It is so smooth at low amperage setting that all positional work can be achieved. Special flux system allows this product to work well with both the arc and torch welding process.	DC+	34,000	18	-

STICK ELECTRODES



PRODUCT	PRODUCT DESCRIPTION	CURRENT POLARITY	TENSILE STRENGTH (PSI)	ELONGATION %	HARDNESS
COPPER ALLOYS, BRASSES & BRONZES					
B 400	A HIGH QUALITY PURE COPPER MANUAL ELECTRODE FOR JOINING AND BUILD-UP. Weld metal is extremely dense and high purity of weld metal allows for dissimilar grades of copper. Applicable for joining and build-up on copper parts requiring corrosion resistance and thermal and / or electrical conductivity.	DC+	35,000	35	60 HB
B 411 SUPER	SUPER TIN BRONZE ELECTRODE. A truly high quality bronze electrode with smooth welding characteristics on AC or DC-current. For joining or surfacing copper alloys, particularly tin and phosphor bronzes. Cladding of steels or 'electric brazing' of cast irons or bronze to steel applications. Dura-Metal B 411 Super is weldable in all positions.	AC or DC-	50,000	20	105 HB
B 423	A SPECIAL TIN/NICKEL/BRONZE ELECTRODE. Outstanding welding characteristics used for joining and surfacing of bronze parts, especially those that are subject to sea water and many other chemicals attack.	DC+	58,000	35	110 HB
B 435	VERY HIGH STRENGTH NICKEL MANGANESE ALUMINUM BRONZE ELECTRODE WITH EXCELLENT WEAR RESISTANCE. Special electrode for joining aluminum bronzes and complex bronzes. Thanks to the exceptional hardness, this corrosion resistant electrode is ideally suited for rebuilding bronzes, surfacing steels, cast irons, etc. Many uses against salt water corrosion or applications such as hot aluminum pressure extrusion or die casting rams.	DC+	96,000	25	155 HB
NICKEL ALLOYS					
N 112	A HIGH QUALITY INCONEL® 625 GRADE ELECTRODE for cladding and joining where corrosion and/or heat resistance combined with impact is required. Also for welding joints of high strength problem steel, heat resisting steels and mild or low alloy steels. Protective overlay applications include: marine components, forging dies, hot handling equipment, fuel gas dust collectors, offshore plant components and mixer shafts.	AC or DC+	115,000	38	25 HRC
N 122	SPECIAL FORMULATED NICKEL CHROME HIGH ALLOYED ELECTRODE WITH HIGH TENSILE/ ELONGATION BALANCE FOR JOINING PARTS SUBJECTED TO THERMAL CYCLING. ULTIMATE THERMAL SHOCK RESISTANCE. For dissimilar weld on nickel base alloys to themselves, to alloyed steels or to stainless steels. Application for operations and/or industries include: Thermal shock-cryogenic equipment, cement plant machinery, furnace equipment. Impact resistance – injection moulds, forging tools and dies.	DC+	100,000	35	-
N 500	HIGHLY ALLOYED ELECTRODE FOR NICKEL COPPER ALLOYS. Special electrode for welding monel and nickel copper alloys. For applications in electrical generation, ship equipment, ammonium sulphate and petroleum industry. Low hydrogen content. Stabilised electrode with superb welding characteristics.	DC+	80,000	36	200 HB
N 502	HIGHLY ALLOYED ELECTRODE WITH HIGH TENSILE/ELONGATION BALANCE. High quality electrode for welding inconel and nickel alloys. For application in the chemical, petrochemical, synthetic, food and nuclear industry. Low hydrogen coating, low cobalt content, austenitic and stabilised electrode. Extreme crack resistance to high thermal cycling and severe dynamic joint stresses.	AC or DC+	106,000	45	-
N 507	A HASTELLOY® GRADE ELECTRODE for cladding and joining that offers excellent resistance to chemical corrosion even at elevated temperature. For fabrication and repairing pump parts, valves, plating tanks, chemical vats, chemical pipelines and furnace racks.	AC or DC+	86,000	32	220 HB Work harden 44 HRC
STEEL JOINING					
S 601	A PROPRIETARY COMMON STEEL ELECTRODE FOR JOINING & SURFACING IN ADVERSE AND RESTRICTIVE CONDITIONS. Easily welds steels that have been galvanized, painted, rusted, or contaminated in service. Slag can be welded over without removal. Repairs to leaks in pipe lines, boilers, mountings, shafts and cracks in steel.	AC or DC+	90,000	28	-
S 612	FOR LOW CARBON STEEL WELDING IN ALL POSITIONS without the need for high amperage and spatter associated with positional welding. Ideal for the maintenance welder. Full fillet welds are possible in the vertical down position. Electrode can be bent without flux breakage.	AC or DC+/-	85,000	25	-
S 666 X	A SUPER LOW HYDROGEN ELECTRODE FOR STRUCTURAL STEELS. Excellent weldability in all positions giving X-ray quality welds for original equipment manufacturing or repair work. Easy strike and very stable arc eliminates many problems of low hydrogen welding. LLYODS APPROVED 3YH.	AC or DC+	85,000	32	-
S 609	SPECIAL LOW HYDROGEN ELECTRODE for highly stressed joints of steel, cast steels and especially for such steels as T1, T1a, T1b. All position weldability and outstanding welding characteristics with metal recovery of 130%.	AC or DC+	110,000	23	-
S 617	ALL POSITION ELECTRODE FOR STAINLESS STEEL. A basic coated stainless steel electrode for welding 14% manganese steels, non-magnetic austenitic stainless steel, armour plate, steels with unknown composition and hardening steels. Resistance to scaling under elevated temperatures. Can also be used as buffer layers prior to hardfacing applications.	AC or DC+	90,000	35	-
S 688 EX1	THE ULTIMATE ELECTRODE FOR MAINTENANCE AND REPAIR WELDING OF STEELS WHEN MAXIMUM SECURITY IS EXPECTED. Designed for troublesome applications such as unknown dissimilar steel joining, tool and die work, axles, shafts and crack sensitive alloy steels. Heat, impact, corrosion and friction resistant. Low heat input minimize changes on the base metal to ensure sound welds.	AC or DC+	130,000	35	320 HB
S 628 L	ALL POSITION ELECTRODE FOR STAINLESS STEEL. A 18/8 Cr/Ni alloy with extra low carbon content (C<0.03%). The high quality coating allows the electrode to run at very low amperages to avoid distortion but still give strong clean spatter-free welds. For grades 301, 302, 303, 304, 308, 321, 347 and corresponding E.I.C. grades.	AC or DC+	86,000	40	205 HB
S 635	ACID RESISTANT STAINLESS STEEL ELECTRODE. All position stainless steel electrode 18/8 Cr/Ni/Mo with E.I.C. (C<0.03%) A high quality alloy for corrosion resistant welds in the food, chemical, petrochemical and dairy industries. High tensile, high elongation with excellent welding characteristics for grades 316, 316L and other acid resistant grades.	AC or DC+	94,000	42	200 HB
S 636	HIGH HEAT RESISTANT STAINLESS STEEL ELECTRODE. Special electrode for welding highly heat resistant Cr-Ni steels with approximately 25% Cr and 20% Ni. Weldable in all positions, except vertical down. Heat resistant 1100°C.	AC or DC+	105,000	37	210 HB
S 690 D	HIGH QUALITY "DUPLEX" ELECTRODE for welding and cladding of austenitic/ferritic microstructure stainless steel. Special applications are joining and overlaying "DUPLEX" stainless pipes, sheets and castings. High resistance to stress corrosion up to 350°C and weldmetal is resistant to chloride containing medias. Excellent overall welding characteristics.	AC or DC+	115,000	25	-
CP 687	A PROPRIETARY ELECTRODE FOR JOINING DISSIMILAR STEEL AND AS BUFFER LAYER PRIOR HARD SURFACING APPLICATION. For repairing difficult to weld steels such as manganese steel non-magnetic austenitic steel and armour plate. Also suitable for repairs to leaks, tools, die, mountings, shafts and cracks in steel. Good for joining any dissimilar or unknown steel grades combinations.	AC or DC+	105,000	28	-
WEAR RESISTING OVERLAYS					
W 702	HIGH WEAR RESISTANCE TO SEVERE IMPACT/PRESSURE. Rutile coated electrode for joining manganese steel to mild steel, etc as well as for building up parts subject to extreme impact, compression and shock. The manganese content makes this electrode work hardening. It is used especially on hard manganese steel or as a cushion layer prior wear resisting overlays.	AC or DC+	-	-	25 HRC Work harden 45 HRC
CP 704	A SUPERIOR ELECTRODE FOR HARDFACING APPLICATION SUBJECTED TO ABRASION, COMPRESSION AND IMPACT WEAR. Unique maintenance product designed specially for protective overlays on iron base parts. Applicable on worm screws, rails, brick presses, wheels, shovel teeth, shafts, hammers and spindle etc.	AC or DC+	-	-	60 HRC

STICK ELECTRODES



PRODUCT	PRODUCT DESCRIPTION	CURRENT POLARITY	TENSILE STRENGTH (PSI)	ELONGATION %	HARDNESS
WEAR RESISTING OVERLAYS					
W 708 P	A PROPRIETARY HIGH QUALITY HARDFACING ELECTRODE. Thick coated economical electrode for wear resistant overlays on a wide range of steels including low alloy and manganese steels. For heavy wear resistant overlays on a wide range of iron base surfaces subjected to severe abrasion, compression and moderate impact. Protective overlays can be applied to crusher parts, excavator teeth, sugar mill rolls, conveyor screw, chutes and screw press etc.	AC or DC+	-	-	60 HRC
W 728 P	HIGH WEAR RESISTANCE TO ABRASION AND COMPRESSION. Hardfacing electrode on chromium carbide basis for applications subject to abrasion and compression. Excellent weldability with high metal recovery of 140%. Very fast deposition saves time, smooth ripple free deposits add to wear resistance and add to machine efficiency as close tolerance can be maintained on repairs. Applicable on worm screws, plough shares & bucket teeth etc.	AC or DC+	-	-	60 HRC
WT 27 HSS	HIGH HARDNESS TOOL STEEL ELECTRODE. The deposit of this electrode is equal to high speed steel for repairs of cutting tools or fabrication of more economical tools by overlaying a lower cost grade base material with a suitable thickness of this material. Can be used as a flux coated torch alloy. 62HRC as deposited. Heat treat if required - anneal 900°C; harden 1210-50°C; quench hot oil, temper 540°C.	AC or DC+/-	-	-	62 HRC
DM ST 6	A STELLITE® 6 GRADE ELECTRODE-RESISTANT TO IMPACT, HEAT, CORROSION, PRESSURE. A very versatile electrode. With its balanced hardness, the resistance against shock and impact as well as against corrosion, heat and medium abrasion is obtained. Main applications are hot working conditions combined with impact, pressure, abrasion, erosion, corrosion, cavitation or edge retention. Applicable on valves, die parts & cutting tool edges etc.	AC or DC+	-	-	42 HRC
DM ST 21	HIGH QUALITY VERSATILE COBALT ELECTRODE FOR RESISTANT TO HEAT, CORROSION, IMPACT AND PRESSURE. Mainly for protective overlaying on ferrous and nickel-base alloy subjected to hot working conditions. Applications include combustion engines valve seats and valves, pump shafts, hot shears and forging dies, high pressure-high temperature valves and steel mill rollers & tongs.	AC or DC+	-	-	32 HRC Work harden 45 HRC
W 731	Cr-Mo-W ALLOY FOR HIGH HEAT/IMPACT RESISTANCE. Nickel based chrome-moly-tungsten alloy electrode for high heat, impact, corrosion type wear resistance. The deposit work hardens up to 45HRC. 150% metal recovery, excellent weldability. Use on hot forging dies, form dies, hot and cold extrusion dies, pump impeller or casing build-up.	AC or DC+	-	-	23 HRC Work harden 45 HRC
CP 700	HIGH TOUGHNESS AND RESISTANCE TO DEFORMATIONS. Cr/Mn alloy electrode for protective coatings to resist loading and impact in service. Rapid deposition rate and completely machinable. Also suitable for cushion layers and heavy buildup. Applications including: tractor pads, hammers, sprockets, machine housing tractor links and rollers.	AC or DC+	-	-	25 HRC Work harden 35 HRC
CP 710	AN EXCELLENT ALL ROUND ELECTRODE FOR HIGH ABRASION RESISTANCE ACCOMPANIED BY MODERATE IMPACT. A high quality chromium carbide electrode that exhibit good compressive strength and superior weldability. Deposits resistant to oxidation and corrosion at elevated temperature. Excellent against severe wear and moderate impact.	AC or DC+	-	-	62 HRC
CP 715	A SUPERIOR ELECTRODE FOR HARDFACING APPLICATION SUBJECTED TO SEVERE ABRASION AND MINERAL WEAR. A unique maintenance product designed specially for protective overlays on worm screws, brick presses, cement presses, screws of refractory presses, gravel pumps and mixer blades. Maximum hardness is achieved rapidly and overlays can be use up to 450°C. Deposits are extremely smooth with little or no ripple formation.	AC or DC+	-	-	64 HRC
CP 717	ULTIMATE COMBINATION OF SEVERE ABRASION & EROSION RESISTANCE AND HIGH TEMPERATURE WITH HARDNESS RETENTION UP TO 850°C. Easy handling and rapid deposition rate. Good hardness retention at elevated temperature. For wear protection of coke pusher shoes, augers in the ceramic industry, hot agglomeration fans and sifters blast-furnace hoppers and bells, and mixer screws etc.	AC or DC+	-	-	68 HRC
CP 695	A WORK HARDENING WEAR RESISTING ELECTRODE THAT PRODUCES DEPOSITS WITH EXCELLENT STRENGTH COMBINED WITH A HIGH DEGREE OF TOUGHNESS. Deposits work harden in service and resist upset, rollover, galling, spalling and scoring. For build up applications and cushion layers prior to hardfacing. Applications include rebuilding of undercarriage components, bucket teeth, buckets, gears, sprockets, track pads and crusher rolls.	AC or DC+	-	-	150 HB Work harden 34 HRC
SUGARARC	A PROPRIETARY COMPLEX CHROME CARBIDE ELECTRODE SPECIALLY FORMULATED FOR THE SUGAR INDUSTRY. For use on sugar crusher roll teeth of high deposition rate with 170% recovery. Minimum dilution and high uniform hardness. Highly resistant to "scouring" effect of sugarcane on millrolls and heat/corrosion resistant up to 500°C. Very good arc strike/re-strike operating ability with no slag interference. Arc "wet" or "dry".	AC or DC+	-	-	62 HRC
W 766 N	A PROPRIETARY HARDFACING ELECTRODE WITH A NANO MICROSTRUCTURE THAT FEATURES EXCEPTIONAL ABRASIVE WEAR RESISTANCE. For heavy wear resistant overlays on mild and low alloy steels surfaces. Protective coatings can be applied to dragline buckets, excavator teeth, wear plates, scrapers, chutes, worm screw press, processing shredders and fan blades etc.	DC+	-	-	69 HRC
DM TUBULAR	A SUPERIOR "TUBULAR" HARDFACING CHROMIUM/COMPLEX CARBIDES ELECTRODE. Quickest non-automated overlaying technique. Very low dilution and maximum hardness is achieved rapidly. Wear protection on all iron base parts subject to high abrasion and compression.	AC or DC+	-	-	62 HRC
DM TUBULAR - TUNGTEC	A SUPERIOR "TUBULAR" TUNGSTEN CARBIDE/CHROMIUM CARBIDE BLEND ELECTRODE. Use for wear protection on parts subject to extremely high stress abrasion wear. A unique maintenance product designed specially for agriculture, ceramics, cement, earth moving & construction industries. For protective overlays on fan blades, shredder knives, dry cement pump screws, ditcher teeth and scrapers etc.	AC or DC+	-	-	68 HRC

WIRES FOR JOINING & HARDFACING



PRODUCT	PRODUCT DESCRIPTION	HARDNESS	SPECIFICATIONS
ALLOY STEEL, STAINLESS STEEL & DUPLEX WELDING ALLOYS			
ER 71T1 W	A HIGH QUALITY CORED WIRE FOR SEMI-AUTOMATED GAS SHIELDED METAL ARC WELDING. Welded joints and surfacing welds on non-alloyed structural steel, boiler plate, steel pipes, fine-grained steels, shipbuilding steels and cast steels. Good strength and suitable for all-positional welding. Stable and penetrative arc with little spatter formation.	-	AWS A5.20 E71T1
ER 70S-6 W	COPPER COATED SOLID MILD STEEL WIRE FOR GENERAL ENGINEERING FABRICATION AND WELDING OF UNALLOYED STEELS & FINE GRAINED C-Mn STEELS. Double deoxidized with higher level of Mn and Si. Produces quality weld with excellent radiograph and mechanical properties. In general engineering, pipe work and pressure vessel fabrication, either for high integrity root runs or joint completion.	-	AWS A5.18 ER70S-6
ER 110S-G W	SOLID WELDING WIRE FOR HIGH TENSILE STEEL QT STEELS TO ATTAIN A WELDED TENSILE STRENGTH UP TO ABOUT 800 N/mm² Good low-temperature toughness. Produces quality weld with excellent ductility.	-	AWS A5.28 ER110S-G
ER 309L W	AUSTENITIC Cr-Ni STAINLESS STEEL WIRE FOR MIG / MAG WELDING. WELDED JOINTS AND SURFACING WELDS ON AUSTENITIC HEAT RESISTING Cr-Ni STEELS OF THE FOLLOWING GRADES: WNR. 1.2780, 1.4729, 1.4740, 1.4815, 1.4825, 1.4826, 1.4828, 1.4832 AND 1.4878. Welding high alloy austenitic Stainless steels to unalloyed and low alloy steels. Applicable as buffer layers prior hardfacing applications. Good wetting properties and non-scaling up to 1050°C.	-	AWS A5.9 ER309L

WIRES FOR JOINING & HARDFACING



PRODUCT	PRODUCT DESCRIPTION	HARDNESS	SPECIFICATIONS
ALLOY STEEL, STAINLESS STEEL & DUPLEX WELDING ALLOYS			
ER 309LSi W	AUSTENITIC Cr-Ni STAINLESS STEEL WELDING WELDING. WELDING HIGH ALLOY AUSTENITIC STAINLESS STEEL TO UNALLOYED AND LOW ALLOY STEELS. This filler alloy is used for welding similar alloy in wrought or cast form. The higher silicon content improve bead appearance and weldability. Good strength and oxidation stability at elevated temperature. Good corrosion resistance and non scaling up to 1050°C.	-	AWS A5.9 ER309LSi
ER 309LT-1 FCW	A SPECIALLY FORMULATED FLUX CORED STAINLESS STEEL WIRE FOR WELDING OF DISSIMILAR WELDS BETWEEN C-Mn OR LOW ALLOY STEELS AND STAINLESS STEEL SUCH AS 304/304L/321/347/316L/410 DUPLEX TYPES. Welded joints and surfacing welds on 309 material and 304 clad sheets and for applying stainless steel sheet linings to carbon steels or as a buffer layer in cladding C-Mn or alloy steels prior to final layers of 308/347 or high alloy hardfacing. Out of position welding capability, rapid deposition rate and easy slag removal.	-	AWS A5.22 E309LT-1
ER 312 W	ER 312 W IS USED TO WELD CAST ALLOYS OF SIMILAR COMPOSITION AND IS USED TO WELD DISSIMILAR METALS SUCH AS CARBON STEEL TO STAINLESS STEEL. This alloys has very high ferrite. When welding similar alloys, limit welding to two or three layers only.	-	AWS A5.9 ER312
ER 316L W	WELDED JOINTS AND SURFACING WELDS FOR TIG, MIG AND SAW PROCESS FOR CORROSION RESISTING, CRYOGENIC, AUSTENITIC STEELS. Suitable for working temperature ranging from -60°C to + 350°C, Very good resistance to intergranular corrosion. Widely used in chemical process plant, marine and industrial environments.	-	AWS A5.9 ER316L
ER 316LSi W	AUSTENITIC Cr-Ni-Mo TYPE SOLID WELDING WIRE. WELDED JOINTS AND SURFACING WELDS FOR TIG, MIG AND SAW PROCESS FOR CORROSION RESISTING, CRYOGENIC, AUSTENITIC STEELS. Suitable for working temperatures ranging from -60°C to + 350°C. Very good resistance to corrosion and pitting, produce smooth bead welding appearance and good toe wetting properties due to higher Silicon content.	-	AWS A5.9 ER316LSi
ER 316LT-1 FCW	A SPECIALLY FORMULATED FLUX CORED STAINLESS STEEL WIRE FOR WELDING OF DISSIMILAR WELDS BETWEEN C-Mn OR LOW ALLOY STEELS AND STAINLESS STEEL SUCH AS 316L/316/316Ti AND 318. Good strength, toughness at elevated temperature. Improved resistance to pitting and crevice corrosion over grades 308L and 309L. Welded joints and surfacing welds of unstabilised and stabilised, corrosion resistant 19/12/3 Cr-Ni-Mo steels. Typically used for joining or cladding 316, 316L, CF-3M and CF-8M.	-	AWS A5.22 ER316LT-1
ER 410NiMo W	SOLID WELDING FOR 13Cr-4Ni-Mo MARTENSITIC STAINLESS STEEL, GOOD STRENGTH AND CORROSION RESISTANCE. Excellent resistance to hydro-cavitations and sulphide induced SCC cracking resistance and good sub-zero temperatue toughness.	-	AWS A5.9 ER410NiMo
ER 630 W	A PRECIPITATION HARDENING STAINLESS STEEL ROD FOR WELDING OF MATERIALS OF SIMILAR CHEMICAL COMPOSITION. Good strength, toughness and oxidation stability. Mechanical properties of this alloy are greatly influenced by heat treatment. For welding joints and surfacing welds on 17-4 PH material.	-	AWS A5.9 ER630
ER 2209 W	ER 2209 W IS A FILLER MATERIAL DESIGN TO WELD DUPLEX STAINLESS STEELS SUCH AS UNS NUMBER N31803. The welds are characterized by high tensile strength and improved resistance to stress corrosion cracking and pitting. The wire is lower in ferrite compared to that of base metal in order to obtain improved weldability.	-	AWS A5.9 ER2209
COPPER & BRONZES WELDING ALLOYS			
B 440 W	A TIN ALLOYED COPPER FILLER METAL WITH GOOD FLOWING PROPERTIES suitable for joining of oxygen free copper and copper materials. Higher pre-heat is recommended.	-	AWS A5.7 ERCu
B 442 W	A SILICON BRONZE GRADE COPPER BASED WELDING ALLOY for welding joints and surfacing welds on copper, copper-zinc alloys and on copper silicon based alloys and also joints to steel. Excellent weldability and good mechanical properties.	-	AWS A5.7 ERCuSi-A
B 445 W	AN ALUMINUM BRONZE GRADE COPPER BASED WELDING ALLOY for protective coatings to sea water corrosion and low concentration acidic environment. Mainly for surface build-up on ship propellers, skid rails, bearings, valves, slide gates and fittings.	-	AWS A 5.7 ERCuAl-AI
B 446 W	NICKEL ALUMINUM BRONZE ALLOY WIRE for joining and surfacing of Al-Bronze, brass, steel and cast iron. For joining and surfacing of components in shipping and chemical industries.The weld metal has excellent resistance to sea water corrosion and most commonly used acids in various concentration and temperature.	-	AWS 5.7 ERCuMnNiAl
B 448 W	FOR JOINING AND SURFACING OF COMPONENTS IN SHIPPING LIKE SHIP PROPELLERS AND PARTS IN CHEMICAL INDUSTRIES. The weld metal is resistant to corrosion and wear. Good resistance to mechanical shock.	-	AWS 5.7 ERCuNiAl
B 491 W	A COPPER NICKEL ALLOY WIRE WITH MEDIUM-LOW RESISTIVITY for use at temperature up to 400°C. Excellent resistance to corrosion at high temperature. High tensile strength. For joining systems and sea desalination plants and thermocouples etc.	-	Din 1733 SG-CuNi10Fe
B 493 W	AN ALLOY WITH RESISTANCE TO CORROSION AND ATTACK BY SEAWATER. Welded joints and surfacing welds on copper-nickel alloy with nickel content of up to 30%. Used in offshore pipe and cladding systems, desalination plants, condensors, evaporators and heat exchangers etc.	-	AWS A5.7 ERCuNi
ALUMINUM WELDING ALLOYS			
ER 1070 W	A ALUMINUM WELDING WIRE WITH THE ALUMINUM MORE THAN 99.6% PURITY. Good corrosion and electrical conductivity properties. Best choice for color-match after anodic process. Applications in power, chemical and food industry.	-	AWS A5.10 ER1070
ER 1100 W	A PURE ALUMINUM WELDING WIRE CONTAINING 0.05-0.2% COPPER AND MORE THAN 99% ALUMINUM. Good corrosion and conductivity properties. Used for welding 1100, 1060, 1070, 1080, 1350 or 3003 type base material. Applications in power, chemical and food industry.	-	AWS A5.10 ER1100
ER 4043 W	A SILICON ALLOYED ALUMINUM WELDING WIRE USED TO WELD Al-Si ALLOYS. Not suitable for anodising. Applications in genaral construction and automotive industry.	-	AWS A5.10 ER4043
ER 4047 W	A SILICON ALLOYED ALUMINUM WIRE FOR ALUMINUM BRAZING AND WELDING. Suitable for cast aluminum and wrought alloys, extrusion, sheets. Its low melting point minimises parent metal distortions. Not suitable for anodising. Applications in marine, furniture and container fabrication.	-	AWS A5.10 ER4047
ER 5183 W	A MAGNESIUM ALLOYED ALUMINUM WELDING WIRE. Used to weld plates where maximum strength is required. Applications in shipbuilding, automotive, pressure vessel, railway and bicycles.	-	AWS A5.10 ER5183
ER 5356 W	A MAGNESIUM AND MANGANESE ALLOYED ALUMINUM WELDING WIRE. Excellent resistance to corrosion especially in marine atmosphere. Applications in ship building, offshore, cryogenic equipment, railway and automotive industries.	-	AWS A5.10 ER5356
NICKEL BASE WELDING ALLOYS			
ALLOY 625 W	A HIGH QUALITY NICKEL ALLOYED WIRE FOR JOINING AND CLADDING WHERE CORROSION AND/OR HEAT RESISTANCE COMBINED WITH IMPACT IS REQUIRED. Extreme high resistance to general and intergranular corrosion, pitting, crevice and stress corrosion cracking. Resistance to high temperature oxidation and carburization. Applications for operations include: Hot forging equipment in seawater and offshore plants, chemical engineering plant and marine components.	-	AWS A5.14 ERNiCrMo-3 NACE:MR175
ALLOY 276 W	ALLOY 276 W IS USED FOR WELDING OF MATERIALS OF SIMILAR CHEMICAL COMPOSITION (NUS NUMBER N10276), AS WELL AS DISSIMILAR MATERIALS OF NICKEL BASE ALLOYS STEELS AND STAINLESS STEELS. This wire also can be used for cladding steel with nickel-chromium-molybdenum content. Offers excellent resistance to stress corrosion cracking, pitting, and crevice corrosion.	-	AWS A5.14 ERNiCrMo-4

WIRES FOR JOINING & HARDFACING



PRODUCT	PRODUCT DESCRIPTION	HARDNESS	SPECIFICATIONS
NICKEL BASE WELDING ALLOYS			
ALLOY 718 W	ALLOY 718 W IS USED FOR WELDING ALLOYS 718, 706 AND X-750. It is mainly used for welding high-strength aircraft components involving cryogenic temperatures. This alloy can be age hardened to higher strengths.	-	AWS A5.14 ERNiFeCr-2
CI NI-1 W	A HIGH NICKEL WELDING WIRE THAT GIVES A LOW CARBON PURE NICKEL DEPOSIT WITH ABOUT 3% TITANIUM FOR REFINEMENT AND TO SUPPRESS POROSITY. Excellent resistance to corrosion at elevated temperature. For joining and surfacing of high nickel based alloy. Also recommended for joining nickel alloy to dissimilar metal such as carbon steel, stainless steel and copper nickel alloy. Use also extensively for welding and repairing cast iron components and as buffer layer.	-	AWS A5.14 ERNi-1
CI 225 W	CI 225 W IS AN OPEN ARC WIRE USED ON NEW AND WORN CAST IRON PARTS REQUIRING JOINING, BUILD UP OR REPAIR. IT HAS A GOOD TOLERANCE FOR HIGH PHOSPHORUS OFTEN FOUND IN CAST IRONS. It works well when welding thick section, and is also recommended for joining cast iron to dissimilar metals. CI 225 W can also be submerged arc with neutral flux. Main typical applications include joining, build up and repair of cast iron parts.	-	PROPRIETARY
DM 50 Ni MIG	A HARD NICKEL BASED TUBULAR WIRE THAT FLOWS EASILY INTO BASE METALS AND YIELDS SMOOTH DEPOSITS. GOOD RESISTANT AGAINST CORROSION AND ABRASION ACCOMPANIED BY IMPACT. It can be deposited on low and medium carbon steels, stainless steels and cast iron. Applications include shafts, forging hammer dies, shear blade and valve components etc.	50 HRC	AWS A5.21 ERCNiCr-B
DM 60 Ni MIG	A HIGH HARDNESS NICKEL BASED TUBULAR WIRE THAT FLOWS EASILY INTO BASE METALS AND YIELDS SMOOTH DEPOSITS. GOOD RESISTANT AGAINST GALLING, PITTING, CORROSION AND ABRASION. It can be deposited on low and medium carbon steels, stainless steels and cast iron. Applications include draw blocks, slurry pipe elbows and impeller screws etc.	60 HRC	AWS A5.21 ERCNiCr-C
COBALT BASE HARDFACING ALLOYS			
DM ST 1 MIG	A COBALT BASED WIRE VERSION OF ALLOY # 1, PRODUCES A DEPOSIT RESISTANT TO OXIDATION AND REDUCING ATMOSPHERES UP TO 2100°F. High temperatre hardness and matrix toughness of the alloy is enhanced by the addition of tungsten. DM ST 1 MIG is excellent for solid particle erosion wear due to its high hardness. It can be applied to all weldable steels, including stainless steels. Typical applications include hydropulper disc, mixer blades, rotors and pump sleeves.	55 HRC	Cored Wire: SFA/AWS A5.21 ERCCoCr-C Solid Wire: SFA/AWS A5.21 ERCoCr-C
DM ST 6 MIG	A COBALT BASED WIRE VERSION OF ALLOY # 6, PRODUCES A DEPOSIT OF GOOD COMBINATION OF MACHINABILITY, CORROSION & CRACK RESISTANCE, IMPACT & ABRASION RESISTANCE. Good hardness retention at elevated temperature and exhibit good toughness. Typical applications include valve seat/spindle, shear blades, auger flights, extrusion screws, galvanizing rolls, mixer rotors, rotary feeders and digester.	42 HRC	Cored Wire: SFA/AWS A5.21 ERCCoCr-A Solid Wire: SFA/AWS A 5.21 ERCoCr-A
DM ST 12 MIG	A COBALT BASED WIRE VERSION OF ALLOY # 12, PRODUCES A DEPOSIT FOR HIGH HEAT AND CORROSION RESISTANCE, WITH EXCELLENT WEAR PROPERTIES. DM ST 12 MIG deposits provide resistance to all types of wear including galling. It can be applied to all weldable steels, including stainless steel. Typical applications include chain saw bars, hot extrusion dies, tong bits, exhaust valves, metal to metal sliding and knife cutting edges.	48 HRC	Cored Wire: SFA/AWS A5.21 ERCCoCr-B Solid Wire: SFA/AWS A 5.21 ERCoCr-B
DM ST 21 MIG	A COBALT BASED WIRE VERSION OF ALLOY # 21, PRODUCES A DEPOSIT FOR HIGH HEAT, CORROSION, WEAR AND IMPACT RESISTANCE PROPERTIES. Work hardening alloy with high temperature strength. Excellent abrasion, corrosion, oxidation and impact resistance. Typical applications include hot trimmings, forging dies, high pressure and high temperature valves, hot shears, valve seats, pump impellers and rings.	25 HRC Work harden 45 HRC	Cored Wire: SFA/AWS A5.21 ERCCoCr-E Solid Wire: SFA/AWS A5.21 ERCoCr-E
IRON BASE HARDFACING ALLOYS			
W 100 MIG	AN IRON BASED HIGH CHROMIUM CARBIDE METAL CORED WIRE DESIGNED FOR METAL TO EARTH APPLICATIONS. Excellent abrasion resistance and can withstand light to moderate impact. Multiple layers build up possible with single bead. For wear resisting overlays on pulveriser roll, grinding equipment and wear plate etc.	58 - 62 HRC	-
W 3000 MIG	AN IRON BASED COMPLEX CHROMIUM CARBIDE METAL CORED WIRE DESIGNED FOR METAL TO EARTH APPLICATIONS TO RESIST SEVERE ABRASION AND LIGHT TO MODERATE IMPACT. Improved wear resistant type alloy over standard chrome carbide overlays. For wear resistance overlays on parts such as coal and cement pulveriser rolls and rings, crushing and grinding equipment, wear plate, pie and elbows and cage mill pins and disk etc.	58 - 64 HRC	-
W 730 MIG	A GENERAL BUILD-UP ALLOY FOR LOW ALLOY STEELS PRIOR HARDFACING. High strength and good elongation properties. Also suitable for mining equipment repair joining/welding, wear plate welding and field equipment maintenance & repair.	25 HRC	-
W 732 MIG	A VERY HIGH DEPOSITION GRADE OF MANGANESE ALLOY FOR SEVERE IMPACT. Excellent work hardening property on 12-14% austenitic manganese steels. Deposits exhibit superior crack resistance and can be build up to unlimited thickness. Suitable for rebuilding manganese steel components such as rails, hammers, cement anvils and crusher cones etc.	22 HRC Work harden 47 HRC	-
W 734 MIG	A TITANIUM CARBIDE IN CHROMIUM MATRIX ALLOY DESIGNED TO GIVE HIGH ABRASION RESISTANCE AND MODERATE IMPACT RESISTANCE. Ideal for high pressure cement rolls, hammers, earth moving equipment, crushers and chutes etc.	56 HRC	-
W 736 MIG	ALL POSITION CHROMIUM - IRON ALLOY FOR GENERAL HARDFACING TO RESIST MODERATE ABRASION COMBINED WITH IMPACT. Excellent for multilayer wear resisting cladding applications. For rebuilding impact drills, sliding metal parts and bucket teeth etc.	59 HRC	-
W 738 MIG	A CHROME CARBIDE ALLOY DESIGNED FOR EXCELLENT RESISTANCE TO ABRASION AND LOW IMPACT. Deposits are non - machinable. Suitable for wear resisting overlays on earth moving equipment, mixer blades, cement die rings, jaw crushers and fan blades etc.	62 HRC	-
W 740 MIG	AN IRON BASED HIGH CHROMIUM CARBIDE METAL CORED WIRE DESIGNED FOR ABRASION AND MODERATE IMPACT. For wear resisting overlays on parts such as screws press, shovel, bucket tooth adapters, crushing equipment, pipe and elbows etc.	56 HRC	-
TUNGSTEN CARBIDE HARDFACING ALLOYS			
DM TUNGTEC - Fe MIG	A SELF-SHIELDING FLUX CORED WIRE WITH CAST TUNGSTEN CARBIDE FOR EXTREME WEAR RESISTANT OVERLAYS. For maximum abrasion resistant overlays with little impact on parts such as mixer blades, augers, scraper blades etc. For industries such as gravel, brick and clay foundries, ceramics and mining.	Tungsten carbide 2200 HV	-
DM TUNGTEC - Ni MIG	A HIGH QUALITY SELF-SHIELDING FLUX CORED WIRE FOR EXTREME ABRASIVE WEAR IN COMBINATION WITH CORROSION ARE ENCOUNTERED. The wire contains Tungsten Carbide in a specially formulated hard nickel matrix. For applications such as decanter screws, mixer blades, drilling tools and impellers.	Tungsten carbide 2200 HV	-
DM TUNGTEC - NiCr MIG	A NICKEL CHROME BORON SILICON MATRIX SYSTEM WITH TUNGSTEN CARBIDE PARTICLES. This combination produces a superior microstructure when welded and has excellent fine particles erosion, corrosion and toughness. The low heat input when welding DM Tungtec NiCr MIG reduces the amount of tungsten carbide particles going into solution. Applications: dredge cutter teeth and heads, rotary bucket dredge teeth, dozer end bits, pipe and elbow ID slurry type application, conveyor screws and filter screens.	Tungsten carbide 2200 HV	-

WIRES FOR JOINING & HARDFACING



PRODUCT	PRODUCT DESCRIPTION	HARDNESS	SPECIFICATIONS
NANO STRUCTURED HARDFACING ALLOYS			
DM 700 N	A METAL CORED HARDFACING TUBULAR WIRE WITH A UNIQUE NANO MICROSTRUCTURE DESIGNED TO PERFORM IN AGGRESSIVE ENVIRONMENT FOR RESISTING ABRASION, HIGH IMPACT AND/OR HIGH STRESS CONDITIONS. Maximum hardness and abrasion resistance maintained through total hardfacing layer. For wear resisting overlays on parts such as grate plate, shovel, bucket teeth, pipes ID, shaker screens, wear plates and various exploration components subjected to high load and high wear.	65 HRC	Proprietary
DM 7000 N	A METAL CORED HARDFACING TUBULAR WIRE WITH A NANO STRUCTURED BASIS FOR RESISTING HIGH ABRASIVE STRESS ALONG WITH MILD IMPACT. Excellent abrasion resistance accompanied with mild impact. For wear resistant overlays on parts such as worm screws, dredge pump impellers, shovel bucket teeth, scrapers, screw conveyors, wear plates and catalytic pipes etc. Last significantly longer than chrome/complex carbide deposits.	68 HRC	Proprietary
DM 9000 N	A METAL CORED HARDFACING TUBULAR WIRE WITH A NANO STRUCTURED BASIS AND HIGH TOUGHNESS FOR EXTREME ABRASION RESISTANCE. Cost effective - alternative to tungsten carbide, chrome carbide and complex carbide. High deposition rate and maintain consistent high hardness level throughout the weld bead. For wear resistant overlays on parts such as dredge pump impellers, shovel bucket, blades, scrapers, screw conveyors, wear plates and mining components etc.	72 HRC	Proprietary
DM Nanoband	A REVOLUTIONARY NEXT GENERATION WIRE THAT HAS BEEN CAREFULLY ENGINEERED TO PROVIDE VERY HIGH WEAR RESISTANCE AND TOUGHNESS. This unique combination makes this product resistant to cracking. DM Nanoband can be welded crack free with low pre-heat. Use mainly for tool joint "hardbanding" application. Excellent casing wear protection and can be apply over other hardband materials. Exceptional tool joint life – simply the best 'hardband' material available.	60 HRC	Proprietary

GAS ALLOY HARDFACING RODS



PRODUCT	PRODUCT DESCRIPTION	TENSILE STRENGTH (PSI)	ELONGATION %	HARDNESS
G 30 Ni	A NICKEL CHROMIUM BORON SILICON SINTERED POWDER ROD SPECIALLY DEVELOPED FOR GLASS MANUFACTURING INDUSTRY THAT GIVES DENSE DEPOSITS FOR ABRASIVE, CORROSIVE & FRICTIONAL WEAR RESISTANCE AT ELEVATED TEMPERATURE. This rod is self-fluxing and can be easily applied by oxyacetylene and TIG welding. Typical applications are glass moulds, valve components and also as buffer layer prior hardfacing.	-	-	32 HRC
G 60 Ni	THIS NICKEL CHROMIUM BORON SILICON SINTERED POWDER ROD THAT GIVES HARD DENSE DEPOSITS THAT POLISH IN SERVICE. This rod is self-fluxing and can be easily applied by oxyacetylene and TIG welding. Low coefficient of friction and resistance to corrosion, erosion, high temperature oxidation and abrasion. Excellent for cams, augers, mixer blades and saw tipping etc.	-	-	60 HRC
G 80 Ni	A SPECIAL BLEND OF TUNGSTEN CARBIDE IN NICKEL CHROMIUM BORON SILICON ALLOY MATRIX POWDER SINTERED ROD SPECIALLY DEVELOPED THAT GIVES DENSE DEPOSITS FOR ABRASIVE & CORROSIVE WEAR RESISTANCE AT ELEVATED TEMPERATURE. This rod is self-fluxing and can be easily applied by oxyacetylene and TIG welding. Typical applications: drill bits, mining tools, stabilizers and augers etc.	-	-	Tungsten carbide 2200 HV
DM ST 6 TIG	HIGH QUALITY VERSATILE COBALT BASE SURFACING BARE CAST ROD FOR RESISTANT TO IMPACT, HEAT, CORROSION AND PRESSURE. Mainly for protective overlaying on components subjected to hot working conditions combined with impact, pressure, abrasion, erosion, corrosion, cavitation or edge retention. Applications include engine valves, pump shafts & sleeves, hot cutting & rotary knives, high pressure-high temperature valves, extrusion screws and furnace retorts etc.	-	-	42 HRC
Drilltech 78G	A PREMIUM QUALITY GRADE COMPOSITE ROD OF CRUSHED TUNGSTEN CARBIDE IN NICKEL/SILVER MATRIX. A composite rod with low fume and excellent wetting properties. Sharp full bodied carbide chips are used in the manufacturing of Drilltech 78G under stringent quality control procedure. Deposits offer outstanding wear protection caused by abrasion and impact of solid media such as sand, gravel, earth minerals e.t.c. For repair and protection of concrete drill, augers, mixer blades, drill pipe, oilfield stabilizers, sludge pump rotors, guides and a wide range of mineral handling equipment.	-	-	Tungsten carbide 2200 HV
Drilltech 78G PLUS	COMPOSITE ROD OF TUNGSTEN CARBIDE CHIPS HELD BY A TOUGH, STRONG NICKEL SILVER MATRIX. Various chip sizes available for a variety of application that need an excellent cutting action such as junk mill, fishing tools, drill shoulders, coring tools, milling tools, down hole reamers, openers and stabilizers etc. Tungsten Carbide chip sizes: 1.6-3.2mm, 3.2-4.8mm, 4.8-6.4mm, 6.4-8.0mm, 8.0-9.5mm, 9.5-12.7mm.	-	-	Tungsten carbide 2200 HV
Drilltech 78G PLUS FC	"FLUX COATED" COMPOSITE ROD OF CRUSHED TUNGSTEN CARBIDE SPECIALLY FORMULATED FOR "CUTTING" APPLICATIONS. Blocky and Sharp full bodied carbide chips are "specially chosen" in the manufacturing of Drilltech 78G Plus FC under stringent quality control procedure. An excellent quality flux coated layer exhibit low fume, good weldability. Applications: repairs and wear protection of deep drilling tools including reamers, openers, fishing tools, casing cutters, milling tools, coring tools and a wide range of mineral handling equipment.	-	-	Tungsten carbide 2200 HV
W 707 G	SUPREME ABRASION RESISTING OVERLAY - For scraper blades, mixing paddles, pump rotors and parts subjected to severe abrasion wear. This alloy has a high concentration of sharp, angular tungsten carbides held in a tough alloy matrix designed for severe wear situations.	-	-	Tungsten carbide 2200 HV
W 707 G Ni	AN OXY-ACETYLENE TUNGSTEN CARBIDE ROD DESIGNED FOR SUPREME ABRASION AND CORROSION RESISTING OVERLAYS. High concentration of sharp, angular tungsten carbide held in a hard nickel alloy matrix. Due to the shape and the hardness of the tungsten carbide held rigidly on a tough nickel alloy matrix, a much higher wear resistance is achieved. The main applications are oil drilling tools, scraper blades, mixing paddles, augers, impellers and parts subjected to severe abrasive & corrosive wear. Typical industry are mining, oil and deep drilling, brick & clay, cement and agricultural etc.	-	-	Tungsten carbide 2200 HV
W 799 Coil	A NEW HIGH PERFORMANCE ANTI-WEAR PRODUCT IN THE FORM OF A FLEXIBLE CORD. Comprising a nickel core wire, covered with a elastic binder containing a mixture of tungsten carbides and nickel alloy powder. Overlaying structure offers extremely effective protection against erosive and abrasive attack by a wide variety of materials. The matrix composition help to absorb impact and improve resistance to corrosion. Applications include ripper teeth, drill bits, stabilizers, mixer and scraper blades, extrusion press screws and cutting edges on plough shares etc.	-	-	Tungsten carbide 2200 HV
W 799 Coil PLUS	AN EXTRUDED OXY-ACETYLENE ROD. A NEWLY DESIGNED HARDFACING PRODUCT CONSISTING OF SPHERICAL CAST TUNGSTEN CARBIDE AND A HARD NICKEL ALLOY MATRIX IN COIL. Extremely uniform distribution of spherical cast tungsten carbide in nickel alloy matrix. Due to the shape and the high hardness of the tungsten carbide, a much higher wear resistance is achieved. The main applications are hardfacing and rebuilding of oil field stabilizers and other oilfield tools where maximum protection is require. Also applicable for augers, impellers, mixer blades in the brick and clay industry and on decanter screws in the food and chemical industry where wear protection and corrosion resistance is require.	-	-	Tungsten carbide 3400 HV

SILVER & COPPER ALLOY RODS



PRODUCT	PRODUCT DESCRIPTION	TENSILE STRENGTH (PSI)	ELONGATION %	HARDNESS
G 22 FC	THE MOST VERSATILE SPECIAL NICKEL SILVER ALLOY FOR MAINTENANCE WITH TENSILE, FLOW AND STRENGTH. G 22 FC EASILY HANDLES ALL. It's unique purging flux and low bonding temperature creates excellent capillary action resulting in homogeneous, clean and shining joints. For use on inserts, fitting & repair of hairline cracks. Combination of steel to tungsten carbide, nickel alloys, brasses give no problem.	102,000	30	210 HB Work harden 25 HRC
G 18 FC	JOINING COPPER-BASE ALLOY, STEEL, CAST IRONS. Special flux coating produces high speed welding action without glare or fuming. Flux cleansing action is exceptional on dirty steels and cast irons. Especially suitable for joining thin sections.	75,000	27	210 HB
G 905	A HIGH QUALITY HIGH STRENGTH COPPER-PHOSPHORUS BRAZING ALLOY WITH GOOD CAPILLARY FLUIDITY. Joining of copper to copper and copper to brass with flux. Applications: pipes, airconditioning & refrigeration, radiators, electrical wiring, electrical contacts, plumbing, copper fittings, motors and copper vessels etc.	61,000	> 8	-
G 915	A HIGH QUALITY HIGH STRENGTH COPPER-PHOSPHORUS BRAZING ALLOY WITH SILVER CONTENT. Brazing of copper to copper, copper to zinc and copper to tin joints which are subjected to loading, vibration and thermal stress. High ductility and good capillary action. Applications: electromotor, plumbing, heat exchangers and refrigeration engineering etc.	61,000	> 10	-
G 935 FC	A HIGH QUALITY FLUX COATED CADMIUM FREE SILVER BRAZING ALLOY WITH GOOD CAPILLARY FLUIDITY. Low temperature joining of a wide range of base metal including chrome, cobalt and molybdenum. Ideal for joining dissimilar metals where brazing that normally does not require finishing operation. Applications: pipes, switches, refrigeration, tube connections and measuring instruments etc.	66,000	25	120 HB
G 945 FC	A HIGH QUALITY CADMIUM FREE FLUX COATED SILVER BRAZING FILLER METAL WITH VERY GOOD CAPILLARY FLUIDITY. Low temperature joining and good penetration properties on heavy joint thickness. Will join copper alloys, steels, nickel alloys in sanitary, refrigeration and electrical industries.	70,000	25	120 HB
G 956 FC	A PREMIUM QUALITY CADMIUM FREE FLUX COATED SILVER BRAZING FILLER METAL WITH HIGHEST SILVER CONTENT. EXTRAORDINARY FLUIDITY AND CAPILLARY ACTION. Unique flux coating provides twice the base metal cleansing action of conventional flux coating. Extra low bond temperature; hence distortion is eliminated. Especially suitable for joints in the food, medical and pharmaceutical industries.	75,000	25	130 HB

WEAR PLATES



PRODUCT	PRODUCT DESCRIPTION	OVERLAY HARDNESS
DMWP 7260	DMWP 7260 IS A GENERAL PURPOSE WEAR RESISTANCE DUAL PLATE with rich chrome carbide overlays for resistance to abrasion and mineral wear. It can be readily welded, cut, rolled and pressed to form complex shapes and still exhibits its ability to withstand wear. Designed to cope with the abrasive wear conditions in mining, thermal power generation, cement, dredging and quarry etc.	60 HRC
DMWP 7562	A SMOOTH DENSE CARBON CHROME WITH MOLYBDENUM TYPE WEAR PLATE. Highly resistant to extreme abrasion and gouging. Excellent matrix toughness and homogeneity for greater wear resistance. Typical applications: hoppers, crusher rolls, shovel, bucket, dump truck and catalytic pipes etc.	62 HRC
DMWP 7565	A COMPLEX CARBIDE DEPOSIT OF CHROMIUM, MOLYBDENUM, NIOBIUM, VANADIUM & TUNGSTEN TYPE WEAR PLATE. Resists severe high stress abrasion and erosion at high temperatures up to 650°C. Typical applications: blast furnace, kilns, screens, exhaust fan blades, and pearlite crushers etc.	65 HRC
DMWP Nanometallic A	A UNIQUE DUAL PLATE WITH A NEAR NANOSCALE MICROSTRUCTURE WELDED OVERLAYS FOR MOST EXTREME SERVICE ENVIRONMENT. Extremely high wear resistance to sliding abrasion. The hardness of welded overlays are uniform throughout and thus vastly improved wear life compare to conventional wear plate. Use mainly on shovel and protection of parts subjected to very high abrasive wear in the mining industry.	70 HRC
DMWP Nanometallic I	A UNIQUE DUAL PLATE WITH A NANOCRYSTALLINE MICROSTRUCTURE WELDED OVERLAYS FOR MOST EXTREME SERVICE ENVIRONMENT. A specially designed wear plate that possess very high abrasion resistance combine with impact and / or high stress conditions. Hardfacing overlays are well dispersed Borocarbide phases in very ductile matrix. Use mainly on dump truck and protection of parts subjected high abrasive and impact wear in the mining industry.	65 HRC

HVOF Powders, PTA/Laser Powders, One Step/Two Step Fusible Powders, Ceramic Powders & Thermal Spray Wires are also available In our sales program

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