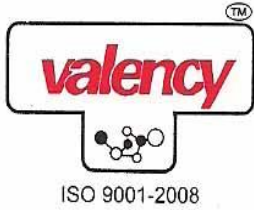


Electrodes for Low Heat Input Hardfacing

'Valency' manufactures an extensive range of Hardfacing Electrodes for a wide range of applications. All products are designed for failsafe performance keeping the techno- economic considerations in mind . The catalogue is attached



PRODUCT CATALOGUE FOR Low Heat Input Hardfacing Electrodes



LOW HEAT INPUT WEAR RESISTING ALLOY

A. STICK ELECTRODES

Product	Description	Applications	Typical Properties	Size and Current				
VALDUR 30 [AC/DC+]	MACHINABLE OVERLAY WITH HIGH IMPACT RESISTANCE	Sugar mill pinion, tractor sprockets, roller rails, wobblers Properties: Hardness -	RC 28-32 (As deposited), RC 35-40(Work Hardened)		Size (mm) Amps	3.15 100-125	4.0 120-160	5.0 150-200
VALMET CA 035 [AC/DC+]	SPATTER FREE WELD, TOUGH, RESISTANT TO ABRASION, IMPACT & SHOCK	Track Links, idlers, Tractors, Sprockets, Rollers, Shafts & Gear Teeth, Low & Medium Carbon Steels, Heavy Sections, gears, sprockets etc.	Hardness - RC 35		Size (mm) Amps	2.50 90-125	3.15 110-135	4.0 80-130 185
VALDUR 40 [AC/DC+]	DEPOSITS A TOUGH, WEAR RESISTANT ALLOY RESISTING HEAVY IMPACT & ROLLING LOAD WITH GOOD RESISTANCE TO MEDIUM ABRASIVE WEAR.	Rollers, Tractor Idler Wheels, Pins, Links, Gears, Clutches, Shafts, Carbon Steel Rail Points & Crossings	Hardness -RC 38 - 42		Size (mm) Length (mm) Amps	3.15 350 85-115	4.0 350 120-160	5.0 350 150-200
VALDUR 50 [AC/DC+]	HIGH ABRASION RESISTANT IRON CARBIDE TYPE DEPOSIT	Buckets, shovels, plough shears, screw conveyors	Hardness - RC 53-55		Size (mm) Length (mm) Amps	3.15 350 100-125	4.0 350 120-180	5.0 350 150-200

Product	Description	Applications	Typical Properties	Size and Current			
CTR 3 [AC/DC+]	HIGH ALLOYED ELECTRODE, AIR HARDENABLE, WITHSTANDS SEVERE ABRASION AND MODERATE IMPACT. ALSO RESIST CORROSION & SCALING	Hot & cold punching dies, chipper knives, crusher hammer, rock drill	Hardness - RC 57-60.	Size (mm) Amps	3.15 75-110	4.0 100-140	5.0 130-170
VALDUR 600 LH [AC/DC+]	CR-MO-V ALLOY FOR HIGH ABRASION & MODERATE IMPACT RESISTANCE	Hot & cold punching dies, chipper knives, crusher hammer, rock drill	Hardness - RC 58-62	Size (mm) Amps	3.15 75-110	4.0 100-140	5.0 130-170
TUFNEL 42 [AC/DC+]	OVERLAY ON MANGANESE STEEL PARTS	Bucket teeth, sprockets, hammers, jaw crushers, track pads.	Hardness - 180-220 BHN 400-450 BHN (Work hardened)	Size (mm) Amps	3.15 100-125	4.0 120-160	5.0 150-200
VALDUR 45 [AC/DC+]	WORK HARDENING, HIGHEST IMPACT RESISTANCE OVERLAY ON MANGA-NESE STEEL AND OTHER STEELS	Railway frogs & crossings, hammers, jaw crushers, excavator teeth, track pads.	Hardness - 220-240 BHN 450-500 BHN (Work hardened)	Size (mm) Amps	3.15 100-140	4.0 120-160	5.0 150-200
VALDUR 45 (S) [AC/DC+]	RICHLY ALLOYED, CR/MO/NI/V TYPE ALOY HAVING SUPERIOR WORK HARDENING CHARACTERISTICS & IMPACT RESISTANCE FOR SURFACING & BUILD -UP OF AUSTENITIC MANGANESE COMPONENTS	Surfacing & build-up of Crusher Jaws, hammers, roll crushers, mining machineries, dipper teeth etc.	Hardness - 210-250 BHN 480-550 BHN (Work hardened)	Size (mm) Amps	3.15 100-140	4.0 150-130	5.0 130-175

Product	Description	Applications	Typical Properties	Size and Current				
CA 042 [AC/DC+]	WEAR RESISTANT, HIGH STRENGTH, WORK HARDENABLE FOR SURFACING & JOINING OF MANGANESE STEEL	Low & medium carbon steels, heavy sections, gears, sprockets etc.	Hardness - 180-200 BHN 400-430 BHN (Work hardened)	Size (mm) Amps	2.50 40-70	3.15 60-100	4.0 80-130	5.0 130-175
WR 86 [AC/DC+]	SEVERE ABRASION RESISTANT OVERLAY ON DIPPER TEETH, BUCKET, HAMMER	Cement grinder rings, road rippers, plough shears, oil expeller worms.	Hardness - RC 58-62	Size (mm) Amps		3.15 80-130	4.0 100-150	5.0 140-210
ROLLEX 6700 [AC/DC+]	DEPOSITS VERY HIGH CHROMIUM CARBIDE ALLOY IN A CREEP RESISTANT DUOMATRIX FOR RESISTING HIGH TEMPERATURE ABRASION AND IMPACT	Coal Bend Pipes & Nozzles, Dredge Cutters, Mill guides, Paddles & Wear Pads etc.	Hardness - RC 58-60	Size (mm) Amps		3.15 80-125	4.0 120-160	5.0 150-200
CRCN 60 [AC/DC+]	HIGH CHROMIUM IRON ALLOY FOR RESISTING MULTIPLE WEAR OF ABRASION, FRICTION AND OXIDATION	Augur screws, guide, wear pads, conveyors, sugar mill fibrizer, hammers.	Hardness - RC 57-60	Size (mm) Amps		3.15 80-125	4.0 120-160	5.0 150-200
VALDUR 3000N [AC/DC+]	HIGH RECOVERY, RESISTANT TO HIGH TEMP. ABRASION & EROSION ON CARBON STEEL, AUSTENITIC MANGANESE STEEL & SOME GRADES OF C.I.	Overlay on Sinter Breaker Arms, Hot Slag Conveyors, Clinker Chains, Bullet Guides, Coke Pusher Shoes, Augers & Slurry pumps	Hardness - RC 61-65	Size (mm) Amps		3.15 100-130	4.0 140-180	5.0 180-220

Product	Description	Applications	Typical Properties	Size and Current			
ABRADUR 6764 HRA [AC/DC+]	DEPOSITS ALLOY CONTAINING HIGH PROPORTION OF STABILIZED HIGH ALLOY CARBIDES GIVING SUPERIOR WEAR RESISTANCE TO SEVERE ABRASION EVEN ABOVE 1000OC. DEVELOPS HIGH HARDNESS EVEN IN ONE PASS	Mill Hammers, Sledge hammers, Scraper Blades, Coal Crushers, Dredger Cutters, TPRF Roller, Wear Plates etc	Hardness - RC 63-68	Size (mm) Amps	3.15 100-150	4.0 100-150	
DIETUF 101 [AC/DC+]	HIGH ALLOY, WEAR RESISTANT, TOUGH, RESISTANT TO REPEATITIVE IMPACT	Build up of Drop Forging Dies & tools, Joining of Forging Tools, Repair of worn out & missing profile , Build up of pinion & gear teeth	Hardness - RC 38-42	Size (mm) Amps	3.15 90-130	4.0 125-165	5.0 155-195
DIETUF 105 [AC/DC+]	FOR BUILDING UP OF FORGING DIES & TOOLS INCLUDING H11 & H12	Build up of gears, pinions, rolls etc., Repair of worn out or missing profile	Hardness - RC 50-52	Size (mm) Amps	3.15 100-120	4.0 125-165	5.0 155-195
VALDUR 108 [AC/DC+]	FOR BUILDING UP OF THE CUTTING EDGE OF TRIMMING DIES	Hot shear blades, slides, press casting dies, heading & trimming dies, forging saddles, hot cutting dies.	RC 42-46 RC 50-52 (Work hardened)	Size (mm) Amps	3.15 100-120	4.0 125-165	5.0 155-195
TCK - 60 [AC/DC+]	HIGH SPEED STEEL TYPE HEAT TREATABLE DEPOSIT	Composite high speed steel dies extruders, trimming dies, hot punches.	Hardness - RC 57-60	Size (mm) Amps	3.15 90-130	4.0 125-165	5.0 155-195

Product	Description	Applications	Typical Properties	Size and Current				
VALDUR 058 [AC/DC+]	CR-MO-VA ALLOY WITH STABILIZER FOR VERY HARD OVERLAY ON TOOLS AND MACHINE PARTS SUBJECTED TO HIGH FRICTIONAL WEAR AND HEAVY IMPACT	Composite high speed steel dies extruders, trimming dies, hot punches.	Hardness - RC 57-60	Size (mm) Amps	3.15 90-130	4.0 125-165	5.0 155-195	
VALMET 8600 [AC/DC+]	SPECIAL ELECTRODE FOR HOT METAL HANDLING PARTS & TOOLS	Swaging die, hot forging & press tools, hot shear blades, coal burner activators, piercing punches & mandrels, vats.	Hardness - RC 20 (deposited) RC 35 (Work hardened)	Size (mm) Amps	2.50 80-100	3.15 95-120	4.00 140-200	
DUROCOB 6U [AC/DC+]	SUPERIOR COBALT BASED ALLOY FOR WEAR RESISTANT OVERLAYS ON CARBON & ALLOY STEELS. CRACK FREE DEPOSIT, WITHSTAND CORROSION & ABRASION AT VERY HIGH TEMPERATURE	Chemical valve seats, pump sleeves, wear pads, screw conveyors, Drill Collars	RC 40	Size (mm) Amps	2.50 55-90	3.15 75-120	4.00 115-180	
DUROCOB 12 U [AC/DC+]	SPECIAL Co-Cr-W ALLOY FOR WEAR RESISTANT OERLAYS ON CARBON STEELS, ALLOY STEELS AND CAST IRON HAVING SUPERIOR ABRASION, FRICTION & CORROSION RESISTANCE AT HIGH TEMPERATURE GIVING HIGH HOT HARDNESS	Chemical valve seats, pump sleeves, wear pads, screw conveyors.	U.T.S. 700 N/mm ² Hardness - RC 45-50.	Size (mm) Amps	2.50 55-90	3.15 75-120	4.00 115-180	
DUROCOB 21 U [AC/DC+]	SPECIAL COBALT ALLOY GIVING MACHINABLE, CRACK FREE DEPOSIT HAVING EXCELLENT RESISTANCE TO IMPACT, EROSION,THERMAL SHOCK, CORROSION & OXIDATION AT VERY HIGH TEMP. & WORK HARDENING PROPERTIES.	Steam Valves, Exhaust Valves, Turbine Parts, Hot forming rolls & Dies etc.	Hardness - RC 30	Size (mm) Amps	2.50 55-90	3.15 75-120	4.00 115-180	
CHROMOLOY 14 [AC/DC+]	FOR TOUGH, MACHINABLE, CORROSION, OXIDATION, EROSION & CAVITATION RESSTANT OVERLAY & BUILD UP ON 13% CR STEEL	Hydraulic turbine, sugar mill trash plates, refiner cone, valves, die casting moulds, pump housing.	die casting moulds, pump housing. Properties: Hardness - RC 33-36.	Size (mm) Amps	2.50 40-70	3.15 90-120	4.0 110-140	5.0 130-180
VALMET 414 N [AC/DC+]	NITROGEN BEARING MARTENSITIC TYPE CR-NI-MO STAINLESS STEEL ALLOY DEPOSIT HAVING EXCELLENT RESISTANCE TO CORROSION, EROSION AND METAL TO METAL FRICTION RESISTANCE AT HIGH TEMPERATURE. ALSO WITHSTANDS THERMAL SHOCKS. CAN BE USED FOR WEAR FACING AND JOINING	Hot mill Rolls, Refiner Cones, Turbine Blades, Die Casting Moulds, Impellers, Valves	(Typical): Elongation 18%	Size (mm) Amps	2.50 60-80	3.15 90-110	4.00 110-150	

Product	Description	Applications	Typical Properties	Size and Current			
CRUSHTEC 92 [AC/DC+]	HIGH RECOVERY, HIGH CARBON & CHROMIUM CONTENT, ROLLER ARCING ELECTRODE FOR DEPOSITING DROPLETS ON GRIPPER POINTS OF CANE CRUSHER ROLLERS.	For roller arcing of cast iron & cast steel sugar mill crusher rollers subject to combination of wear factors e.g. adhesion, abrasion, compression & erosion	Hardness - RC 60-63	Size (mm)	3.15	4.00	
				Length (mm)	350	350	
				Amps	100-130	140-200	
BELTEC 550 [AC/DC+]	MOLYBDENUM -NICKEL ALLOY DEPOSIT RETAINING VERY HIGH STRENGTH AND HARDNESS UPTO 570oC. WELD METAL IS CRACK FREE AND WORK HARDENABLE.	Seat area of Blast Furnace Bells, Tong Pins, Furnace Rolls, Hot shear Blades, Knives, Valve seats, Rolling Mill Rolls etc.	Hardness : 51-57 RC, At 500°C : 47 RC)	Size (mm)	3.15	4.00	5.00
				Amps	85-120	110-175	155-220
VALMET HF 01 [AC/DC+]	ALL POSITION, TOUGH AIR HARDENING C-FE-CR ALLOY RESISTING HIGH IMPACT AND SHOCK LOADING IN SERVICE GIVING MAXIMUM HARDNESS WITHIN EASILY MACHINABLE RANGE	HEMM Parts, Rollers, Idlers, shafts, gears etc.	Hardness: 25-30 RC	Size (mm)	4.00	5.00	
				Amps	100-130	140-170	
VALMET HF 05 [AC/DC+]	DENSE, TOUGH, WEAR RESISTING ALLOY DEPOSIT, RESISTS HIGH ABRASION ON STEELS, HADFIELD MANGANESE STEELS AND MALLEABLE IRON	HEMM Parts, Buckets Teeth, Coal Chutes, Scrapers, Crusher Plates etc.	RC 45-55	Size (mm)	4.00	5.00	
				Amps	140-200	160-210	