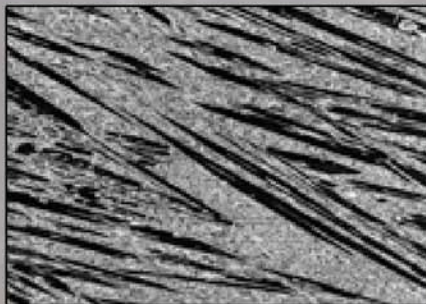




wear plate catalogue

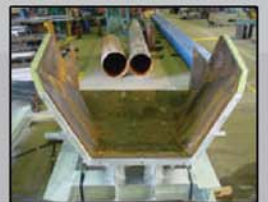
CREUSABRO® 4800(P) - high wear resistant steel
DUAPLATE - base material & overlay plate
VIDAPLATE - chromium carbide surfacing
HARDFACING - tungsten carbide chip hard facing
Everhard - wear plate range, including EHSP
CHROMIUM CARBIDE CC1500 Wearplate
DO-MITE:
Chocky Bars
Wear Buttons & Donuts
Micro Ledge
Wear Plates
Star Plates
Wear Bars & Blocks



wearco nsw

wear plate catalogue

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wearco wear resistant plates and hard metal range

Wear plates, strips and parts are used to reduce wear or erosion in mechanical systems. They are used wherever abrasion, impact, or heat may cause wear and tear on mechanical components. The proper selection of wear strips, plates and parts requires an understanding of both application requirements and product specifications. Wearco NSW in conjunction with Wearpro is committed to an aim of being recognised as number one in innovative wear solutions.

Through the use of Chrome carbide overlay plate, tungsten carbide overlay plate, and a host of other materials, we put our many years of experience to work to solve some of the toughest wear issues that exist, and have the support of international manufactures all recognised as leaders in their associated fields.

WEARCO's comprehensive range of wear plates and associated Hard metals includes:

CREUSABRO® 4800(P) - high wear resistant steel

DUAPLATE - base material & overlay plate

VIDAPLATE - chromium carbide surfacing

HARDFACING - tungsten carbide chip hard facing

Everhard - wear plate range, including EHSP

CHROMIUM CARBIDE CC1500 WEARPLATE - duplex material wear plate

DO-MITE - product range:

Chocky Bars

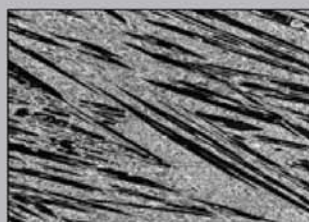
Wear Buttons & Donuts

Micro Ledge

Wear Plates

Star Plates

Wear Bars & Blocks



creusabro®

A high wear resistant steel

Creusabro is quench and tempered wear plate available in 400HB (4800) and 500HB (8000)



C4800 Lined Clamshell



C8000 Screw Flight



C4800 Dust Cyclone for Tomago Aluminium

creusabro® 4800(P)

CREUSABRO® 4800(P) is a high wear resistant steel, offering a 50% extra in service life compared to a conventional 400 HB water quenched.

Improved properties of CREUSABRO® 4800(P) are the result of the combination of an enriched analysis (chromium, molybdenum and titanium) and specific heat treatment procedures.

More than hardness, the wear resistance of CREUSABRO® 4800(P) is based on:

- a very fine distribution of chromium, molybdenum, and titanium microcarbides reinforcing the microstructure with the same principal as composite materials.
- very efficient work hardening capability in service, coming from a metallurgic effect called "TRIP effect" (Transformation Induced by Plasticity).
- Reinforcement of the grain structure with titanium carbides.

Together with its high wear properties, CREUSABRO® 4800(P) exhibits very good aptitude to processing. Especially, the limited hardness in delivery condition, strongly facilitates processing operations like cutting, machining and forming.

creusabro®

creusabro® 8000(P)

CREUSABRO® 8000(P) is a high performance wear resistant steel, exhibiting a wear resistance 50% higher than that of conventional 500 HB water quenched steel.

CREUSABRO® 8000(P) uses an innovative concept, based on a unique combination of chemical analysis and heat treatment procedures (oil quenching). This confers to the steel an improved wear resistance by the contribution of:

- a very fine distribution of chromium and molybdenum microcarbides reinforcing the microstructure with the same principal as composite materials.
- a very efficient work hardening capability in service, coming from a metallurgic effect called TRIP effect (Transformation Induced by Plasticity).

In addition to its high wear resistance, CREUSABRO® 8000(P) still maintains a very good aptitude to processing, far better than that of other 500 HB water quenched steels. CREUSABRO® 8000(P) offers the best possible optimization of an exceptional wear resistance and a very acceptable workability.

duaplate

base material

Duaplate is a clad plate manufactured by welding a abrasion resistant material to a steel base. The standard base material is AS3678-1990-250 (ASTM-A36) steel this can be changed to your specification.

overlay material

Complies with the requirements of AS2576-2355
The overlay material is known as austenitic chromium carbide iron. The microstructure of this material consists of primary M7C3 carbides in a eutectic matrix of austenite and carbide.

Duaplate is available in a range of grades to suit general abrasion, high abrasion, high impact, and high temperatures.

Good general abrasion resistance is proved by the hard chromium carbides protecting the matrix from abrasive wear.



50n8 Head End Clamshell fabricated from Duaplate

vidaplate

Vidaplate is a wholly Australian invented hard surfacing process giving a true chromium carbide surface on a structural grade steel backing plate.

Vidaplate users benefit by spending less on wear plate; reducing down time and minimizing lost production.

Vidaplate in Construction

Construction work of all types involves earthmoving, digging, grading, scraping, meaning constant wear problems on equipment.

Abrasion, impact and erosion all reduce the working life of buckets, blades, truck bodies, causing downtime and lost production.

This means that effective wear protection is an investment making a positive contribution to productivity and profit. Vidaplate is such an investment. Its chromium carbide overlay on a mild steel base gives long lasting protection from abrasion with easy fabrication and fitting.

It can be supplied from the factory as kits, pre-cut to fit most buckets, dozer blades or truck bodies. Either way Vidaplate will give long lasting wear at an economical cost.

Vidaplate in Coal Preparation

Digging, crushing, screening and washing – all part of coal preparation and all causing wear to equipment. Vidaplate chromium carbide overlay plate can significantly cut down wear problems. It consists of fine grain carbides on a mild steel backing plate and offers excellent cost effectiveness. Vidaplate has been shown to outlast mild steel 12 times and AR plate up to 5 times in the most highly abrasive areas. It can be used simply as liners or used with the mild steel backing to fabricate complete components.

Vidaplate in Ore Processing

All forms of mining and mineral processing suffer from severe wear problems. Vidaplate chrome carbide overlay plate has been effective world-wide in combating this problem in all kinds of operations: Iron Ore, Coal Mining, cement Productions, Steel Works. Its fine grain nodular carbide structure has been specifically formulated to give the most effective wear resistance available; the mild steel base plate gives the toughness and resilience in medium impact situations – together, they offer the user a wear plate giving high abrasion resistance with ease of fabrication.

Vidaplate in Cement Manufacture

From excavator bucket liners digging the raw limestone, to the final discharge pipe of the finished product, Vidaplate is indispensable in cement producing plants.

Screens, bins, blenders, chutes, fan blades all suffer severe abrasion. Vidaplate chromium carbide overlay plate reduces wear in these areas. Its fine grain nodular carbides have extremely high wear resistance and offer superior cost effectiveness over other forms of wear protection. It can be used simply as liner plates, or because of its mild steel base, can be used as structural material to make the complete item.

Grade Specifications

Vidaplate base material is structural grade steel plate equivalent to ASTM – A36.

Overlay Material

Vidaplate overlay material consists of a hypereutectic iron based chromium carbide alloy.

hard facing

Wearco Wear Products supplies all sorts of hard facing including tungsten carbide chip hard facing.

The range of hard wearing plate is additionally extended to cut to size and purpose selected hard plate materials through quality endorsed national and international suppliers, representing wear plate material known throughout Australia's industrial and mining industries.



Hard facing top of Rock Quarry Grouser



Screen Grouser screen Hard facing



Tungsten Chip Hard facing to
Grader Blades



Tungsten Chip Hard facing to Drag
Shackle

everhard

Everhard 320 and 360 are wear plates with a minimum hardness of 321 and 361 Brinell (BHN) respectively. Both grades are thru hardened, free of mill scale and offer good ductility. With excellent flatness and a low CEQ, these products are easily welded using low hydrogen consumables.

Everhard 360A is designed for applications where high impact may cause problems. EH-360A is supplied in thickness range 60 mm up to 100 mm.

Everhard 500 is a heavy duty wear plate with a minimum hardness of 477 BHN. With its high carbon and chromium content, EH-500 has been used for situations where extreme abrasion is experienced. Trials of the new EH-SP have indicated that EH-SP can replace EH-500 in most situations with better results.

EHSP. Trials have been conducted with several major companies in testing JFE's new "titanium tuff" wear plate EHSP. These tests proved to be extremely successful and dramatically improved the life of many components manufactured from this new, super wear resistant plate.

chromium carbide wearplate

A duplex material consisting of a very tough and highly wear resistant alloy overlaid into a shock absorbing mild steel or chromium steel backing plate. These properties render this product suitable for use under extreme operating conditions where the cost of downtime far outweighs the initial expenditure or the capital outlay of replacement.

Reduce your operating costs with Wearplate - Proven tough and reliable

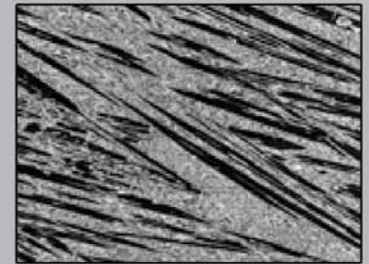
Chromium Carbide Weld Deposit

Wearplate is produced by the submerged arc welding principle resulting in a highly controlled deposition rate and allowing flexibility in alloy content and type.

Uniform & consistent Surface Finish

This is important when considering the "flow" characteristics in abrading materials.

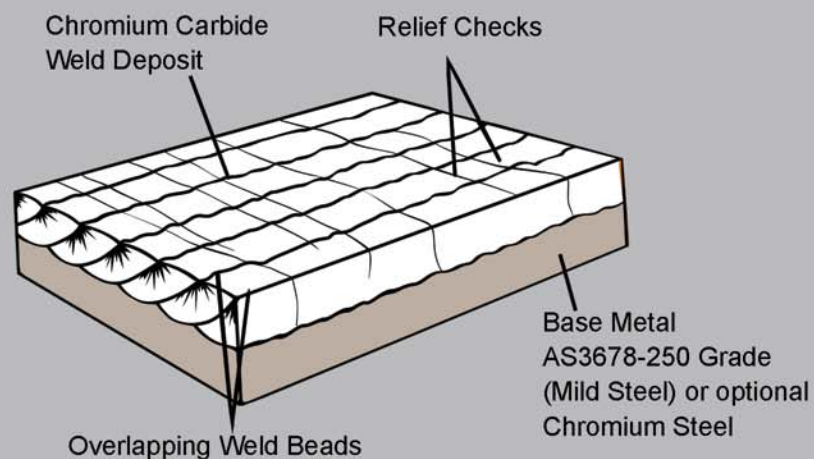
The uniformity of the Wearplate also discourages excessive concentration of wear at weld overlaps that are typical of wide bead bonded systems.



Overlapping Weld Beads

The alloy deposit is inlaid with an interlocking weld penetration for high strength and flexibility.

The true weld bead penetration results in an actual increase in the surface area of the interface in comparison to other types of duplex materials.



hard metals do-mite & ni-hard materials

do-mite 700 BHN

DOMITE (700 BHN) products are made in Australia. This unique product was originally created for the Australian mining and quarrying industries by Mason & Cox Foundries in 1967 at which time an Australian patent for the product was applied for and granted. Today the DOMITE range of products is manufactured and distributed to worldwide markets.

Wearco have supplied the original Australian made DOMITE products for over 20 years, supplying a wide range of different DOMITE shapes and sizes for a wide variety of applications both locally and overseas.



In addition to DOMITE, Wearco supplies other wear resistant composite products known as REMAR (a reinforced white iron), and RUBBADEX (a rubber/steel backed noise reduction wear plate). All these products are designed to withstand high impact and provide maximum wear resistance in the mining, earthmoving, construction, dredging, crushing, sugar and recycling industries.

For any wear solution Wearco is able to offer its customers, full design, layout and assembly of all DOMITE products. Designs can incorporate other wear products such as ceramics, wear resistant rubbers and polymers, sintered Tungsten carbide enhanced products, QT or AR plate, clad or overlay plate and wear resistant castings and alloys.

All this is available from Wearco as a "one stop shop" for all your abrasion resistant product needs. References can even be provided from past Wearco wear solution projects.



chocky bars

WEARCO- Suppliers of the original , unique and versatile DOMITE Chocky Bar!!

This product has long been the most popular wear item in the DOMITE® range.

The Chocky Bar was developed many years ago as an alternative to expensive, labour intensive, hard facing welding methods.

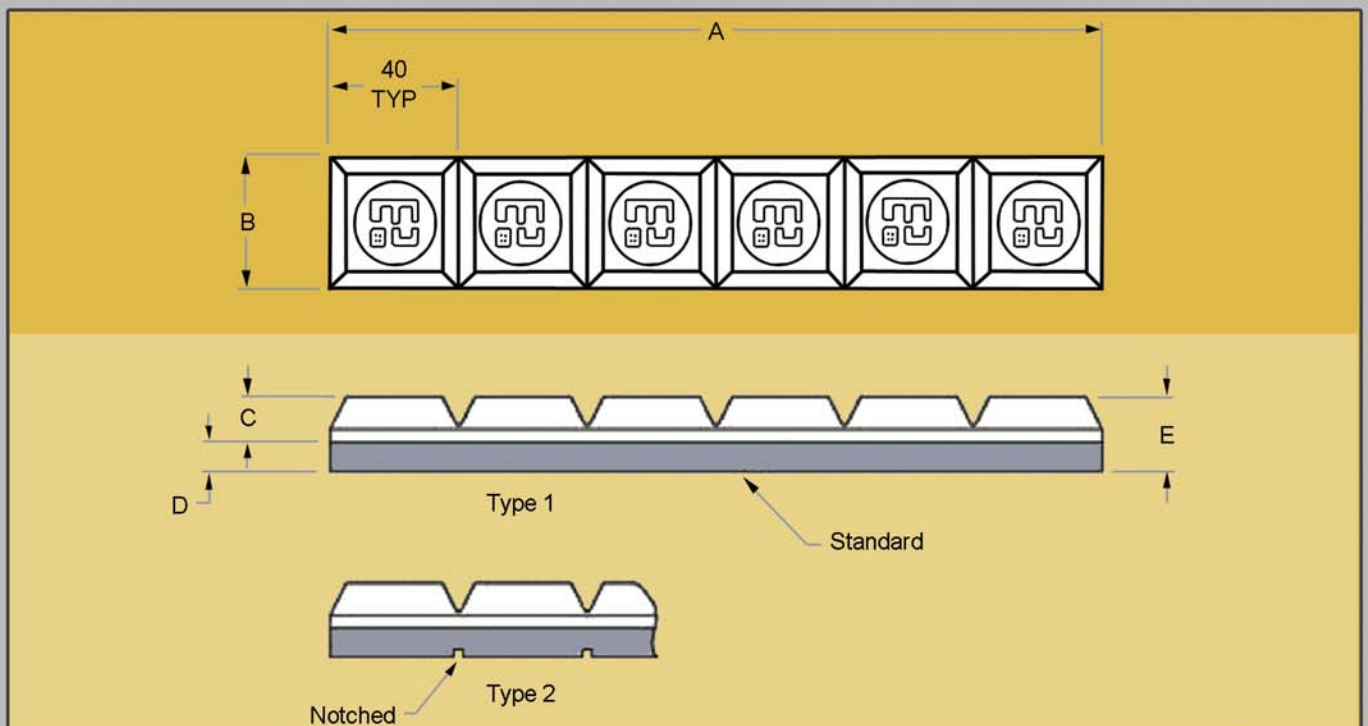
Applications for the Chocky Bars are wide and varied, ranging from specific wear protection on buckets for loaders, excavators and draglines machines, or for weld-on hammer tips for the re-cycling industry, or chute linings and rock box edges.

Chocky bars are so easy to use! No storage problems or excessive cutting into strips required when compared to sheets of wear plates. There is also no pre-heating or post heating required when welding bars into place. Refer to the comprehensive Welding Instructions.

Chocky Bars are easy to cut and form (link to instruction page) onto inside and outside contoured surfaces. Users can calculate their own lay-outs and patterns depending on the area and shape of the parts that they want to protect. The notches in the Chocky Bar casting and/or backing plate assist in cutting them to size or bending them to shape to suit the application.

Talk to us about the use of Chocky Bars for your particular application.

The table opposite shows the range of Chocky Bars available; wear bars from 25mm up to 130mm wide supplied with both notched and un-notched steel backing plates.



chocky bars

Being the original inventors of the Australian made DOMITE product, over the years CQMS and WEARCO have developed a range of over 3,000 different DOMITE shapes and sizes for a wide variety of applications.

In addition to DOMITE, WEARCO supplies other wear resistant composite products known as REMAR (a reinforced white iron), and RUBBADEX (a rubber/steel backed noise reduction wear plate). All these products are designed to withstand high impact and provide maximum wear resistance in the mining, earthmoving, construction, dredging, crushing, sugar and recycling industries.

For any wear solution WEARCO is able to offer its customers, full design, layout and assembly of all DOMITE products. Designs can incorporate other wear products such as ceramics, wear resistant rubbers and polymers, sintered Tungsten carbide enhanced products, QT or AR plate, clad or overlay plate and wear resistant castings and alloys.

All this is available from WEARCO as a "one stop shop" for all your abrasion resistant product needs. References can even be provided from past CQMS wear solution projects.

Part Number	Type	A	B	C	D	E	Weight
CB 25	1	240	25	15	8	23	0.9
CB 25N	2	240	25	15	8	23	0.9
CB 40	1	240	40	15	8	23	1.5
CB 40N	2	240	40	15	8	23	1.5
CB 50	1	240	50	15	8	23	1.9
CB 50N	2	240	50	18	8	23	1.9
CB 65	1	240	65	15	8	23	2.5
CB 65N	2	240	65	15	8	23	2.5
CB 90	1	240	90	15	8	23	3.5
CB 90N	2	240	90	15	8	23	3.5
CB 100	1	240	100	15	8	23	3.9
CB 100N	2	240	100	15	8	23	3.9
CB 130	1	240	130	15	8	23	5.2
CB 130N	2	240	130	15	8	23	5.1

wear buttons & donuts

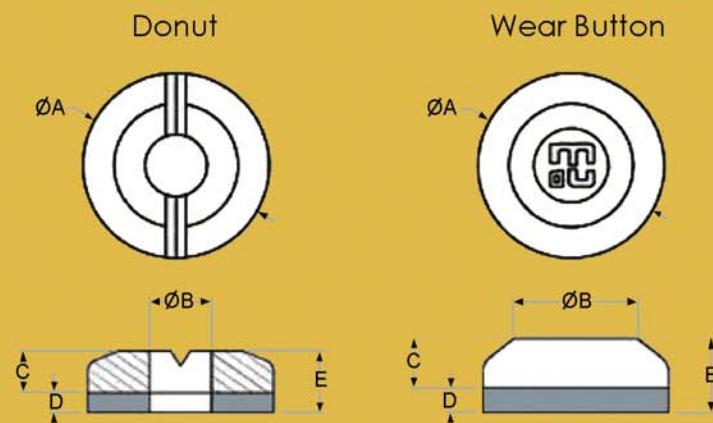
DOMITE® (700 BHN) Wear Buttons and Donuts are the perfect alternative to expensive, labour intensive hard facing or the need to cut wear strips from full sheets of wear plate.

Available in diameters from 60mm up to 150mm.

Develop your own layout and pattern to suit your particular wear protection solution.

Talk to us about how to effectively use these parts for applications ranging from specific wear protection on buckets and GET for loaders, excavators and draglines, to conveyor transfer points and chutes.

DOMITE® Wear Buttons are easy to use and install with no pre or post heating.



Part Number	A	B	C	D	E	Weight
Wear Buttons						
WB 60	60	40	20	10	30	0.7
WB 75	75	50	20	10	30	0.9
WB 90	90	60	20	10	30	1.4
WB 115	115	95	20	12	32	2.6
WB 150	150	130	25	16	41	5.7
Donuts						
DLP 1920	75	25	17	8	25	0.7
DLP 1921	100	50	17	8	25	1.0
DLP 1994	100	70	24	8	32	1.0
DLP 2196	130	80	15	8	23	1.3

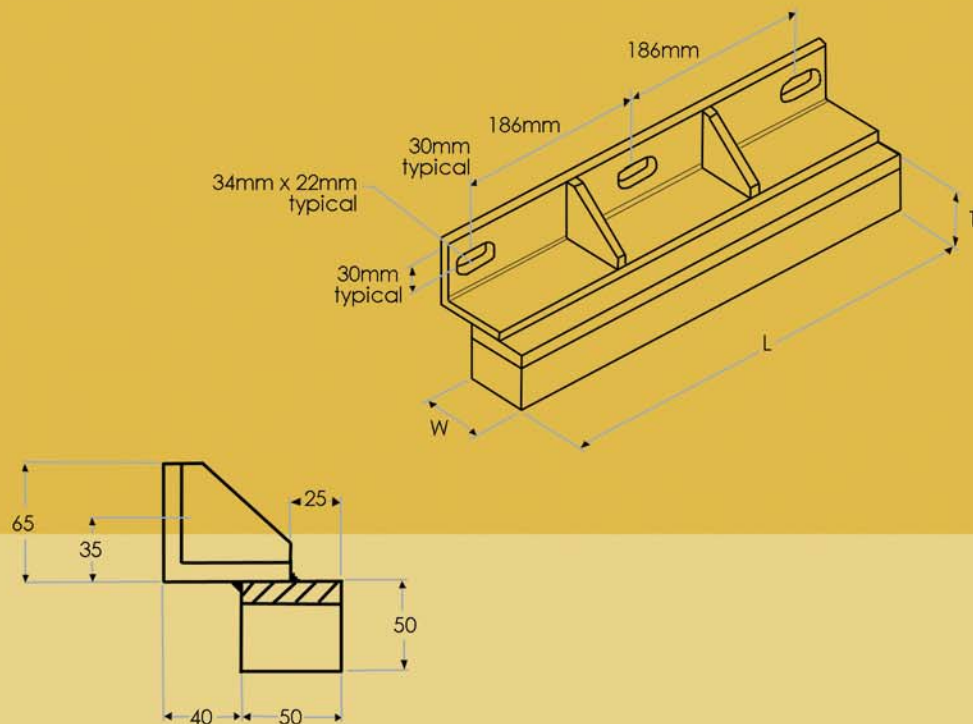
domite micro-ledge

Developed for the Mining industry!

DOMITE® (700 BHN) Micro-ledges were developed to reduce the weight of liners for bins, hoppers, and chutes required for a specific installation.

Each installation requires a layout and pattern specific to the customers needs.

Please contact your CQMS representative for assistance and advice on how CQMS® can save you money when installing DOMITE® Micro-ledges.



Part Number	Length	Width	Thickness	Weight
SDP 1010	115	50	50	3.2
SDP 304	128	50	50	3.6
SDP 1009	150	50	50	4.2
SDP 296	190	50	50	5.5
SDP 299	210	50	50	6.0
SDP 297	230	50	50	6.6
SDP 298	432	50	50	12.5

domite wear plates

WEARCO has a huge selection of wear plates from which to choose!



Wear Plates are available in thicknesses ranging from 20mm to 75mm and in sizes up to 500mm square.

Suitable for use in chutes, hoppers, bins, impact walls, screen plates, and general wear protection in many proven Fixed Plant applications.

To cover large areas with requires a planned layout using liners of various shapes and sizes which are available from Wearco's extensive range. With your input, Wearco can do all your design work for liner layouts and installations.

Wear Plates are easy to use and install. They can be welded or can be stud bolted to suit your fitment needs. Talk to your Wearco representative about the range of stud bolt options available and how we can design, manufacture and supply your specific liner needs.

Wear Plates offer superior wear life when compared to conventional alloys used such as manganese steel, nihard alloys, chrome-moly pearlitic steels, Q&T bars and clad overlay strips. Wear Plates provide the ability to change out worn sections only, rather than replacing whole sheets or plates.

Wear Plates and other products present a very cost effective method of extending wear life of the machinery you want protected. Refer to the High Stress Gouging Abrasion Test data for comparisons of Wearplate vs others. DOMITE® offers far superior wear life!

Part Number	Type	A	B	C	D	E	F	G	Weight
Standard									
DLP 995		305	150	18	6	24			8.6
DLP 1213		301	200	18	10	28			13.2
DLP 352		206	203	38	20	58			19.0
DLP 727		294	294	20	8	28			19.0
DLP 1(MOD)		300	300	20	10	30			21.2
DLP 692		445	294	20	8	28			28.8
DLP 2		372	372	20	8	28			30.4
DLP 667		445	445	19	6	25			38.9
DLP 2180		400	400	15	8	23			28.7
Trapezoidal									
DLP 1935	1	190	212.5	17	8	25	50	80	10.0
DLP 2002	2	241	290.5	22	8	30			19.5

star plates

A new innovation using a “one size fits all” concept for chute, bin and hopper linings!

DOMITE® (700 BHN) Star Plate – the multi-shaped wear resistant plate.

The Star plate concept is based on using one size for most applications to suit chute, bin, hopper, bucket and truck bed linings. It offers a very cost effective, extremely long wear life alternative to standard chrome-carbide clad sheets and AR wear plates which have to be cut and shaped using special tools and equipment.

Features:

- Standard size at 400mm square by 23mm thick to suit most linings
- Cast notches on wear face corresponding to slotted backing plate to allow controlled breaking under force
- One standard plate produces many different sizes and shapes
- Bevelled edges to reduce hanging of material and chipping/spalling of edges
- 700 BHN wear plates offering superior wear and impact resistance when compared to Chrome-carbide clad plate
- Designs and shapes can be modified to suit specific needs
- Unit weight 29.0kgs

Benefits:

- Ease of use and installation
- Extended wear life when compared to the AR plates and Chrome-carbide plates
- Reduces total weight of liners required when compared to AR plates
- Reduced liner inventory required for installations and repairs for all applications
- Less downtime and maintenance
- Ability to replace worn individual sections rather than whole plates or sheets
- Cost effective due to extended wear life



wear bars & blocks

Choose from CQMS' extensive range of bars and blocks!

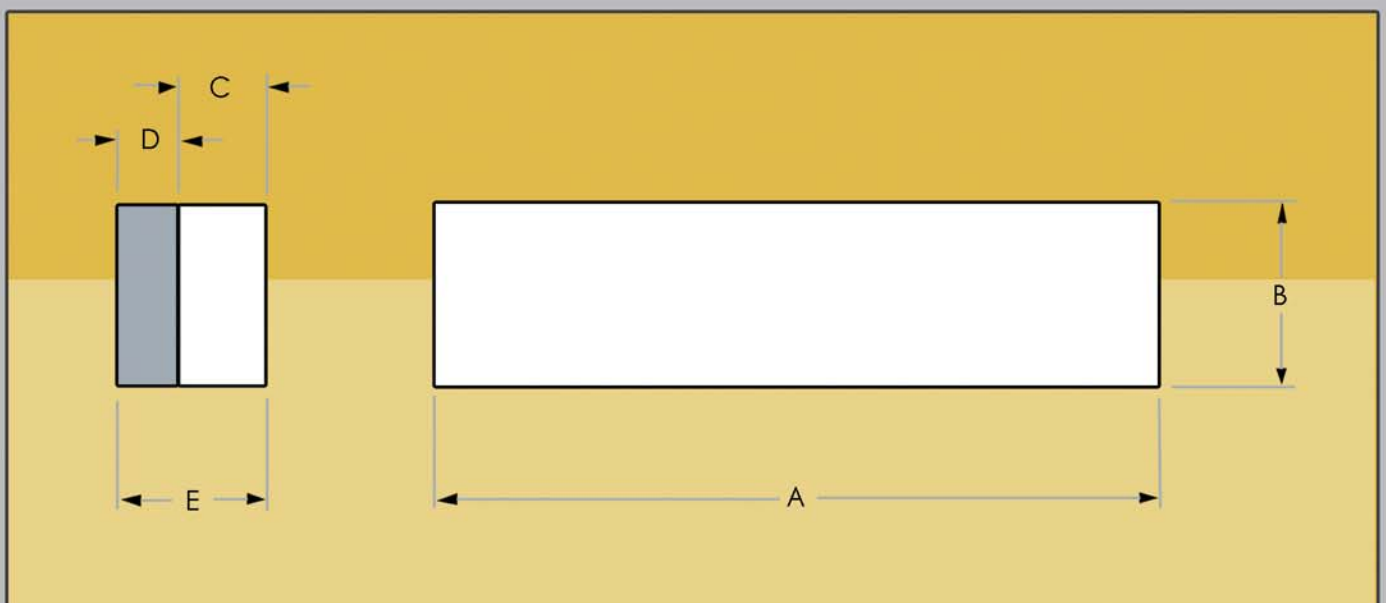
Wear Bars and Blocks are available in thicknesses ranging from 25mm to 100mm, widths from 25mm to 300mm wide and in varying lengths. Let us know what size or dimensions that you want, if we don't have it, we will make it for you.

Suitable for use in chutes, hoppers, bins, transfer points, rock box edges and many other proven Fixed Plant applications.

Wear Bars and Blocks are easy to use and install using the Welding Instruction. Wear Bars and Blocks can be stud bolted to suit your fitment needs. Talk to us about the range of Studded wear bars we can offer.

Wear Bars and Blocks offer superior wear life when compared to conventional alloys used such as manganese steel, nihard alloys, chrome-moly pearlitic steels, Q&T bars and clad overlay strips. Wear Bars and Blocks give the ability to be able to change out worn sections only, rather than replacing whole sheets or plates.

Wear Bars and Blocks offer a very cost effective method of extending wear life of the machinery you want protected.



wear bars & blocks

Part Number	A	B	C	D	E	Weight
DLP 919	200	25	15	10	25	1.0
DLP 1191	300	25	15	10	25	1.5
DLP 515	195	25	20	10	30	1.1
DLP 200	102	33	25	8	33	0.9
DLP 295	153	38	25	8	33	1.5
DLP 4	300	38	25	8	33	3.0
DLP 271	203	50	12	8	20	1.6
DLP 270	254	50	12	8	20	2.0
DLP 508	190	50	20	10	30	2.2
DLP 115	50	38	12	50		2.3
DLP 337	127	51	38	10	48	2.4
DLP 1101	150	50	40	10	50	2.9
DLP 343	190	50	40	10	50	3.7
DLP 210	50	38	12	50		4.1
DLP 125	230	50	38	12	50	4.5
DLP 453	294	50	40	10	50	5.8
DLP 2017	300	50	40	10	50	5.9
DLP 201A	432	50	38	12	50	8.5
DLP 2230	600	50	38	12	50	11.8
DLP 965	250	60	12	8	20	2.4
DLP 184	150	75	29	10	39	3.4
DLP 528	150	75	40	10	50	4.4
DLP 619	150	75	50	10	60	5.3
DLP 451	194	80	38	12	50	6.1
DLP 450	294	80	38	12	50	9.2
DLP 392/20	241	100	38	20	58	11.0

ni hard products

Ni Hard is the trade name for a group of nickel chromium alloyed white cast irons possessing outstanding resistance to abrasion. Wearco is able to supply the Ni-Hard product for your specific needs, whether it is from wear tiles to plough arms or other castings.

Wearco supplies the 3 main types of Ni Hard. Types 1 and 2 have proved an economic replacement for white cast iron under most conditions of wear-resisting service and for carbon and 12% manganese steels for wear resistance under conditions of moderate impact. Increased wear and impact resistance are possible with Ni Hard 4.

Differences in service properties of Ni Hards 1, 2 and 4 are explainable in terms of their microstructural characteristics.



COMPOSITION AND HARDNESS

	Composition, per cent									Brinell Hardness	
	C	Si	Mn	Ni	Cr	S	P	Mo	Spec.	Typical	
Ni Hard type 1	3.20	0.30	0.20	3.00	1.50	0.12	0.15	0.50	550	600	
(AS2027 Gr Ni Cr 1-550)	3.60	0.80	0.80	5.00	3.00	max.	max.	max.	min.		
Ni Hard type 2	2.80	0.30	0.20	3.00	1.50	0.12	0.15	0.50	500	550	
(AS2027 Gr Ni Cr 2-500)	3.20	0.80	0.80	5.00	3.00	max.	max.	max.	min.		
Ni Hard type 4	3.20	1.50	0.20	4.00	8.00	0.12	0.15	0.50	630	670	
(AS2027 Gr Ni Cr 4-630)	3.60	2.20	0.80	5.50	10.00	max.	max.	max.	min.		



wearco^{nsu}

proven performance in mining consumables

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