Conveyor Wear Liners

ASGCO®
Complete Conveyor Solutions

Providing the World Bulk Material Handling Industry with Productive, Safe and Reliable "Complete Conveyor Solutions."

Wear Solutions

ASGCO®
Complete Conveyor Solutions

PRODUCTS AND SERVICE THAT LEAD TO SOLUTIONS

At ASGCO®, our core motivation is to solve problems. We love a challenge, and thrive under pressure. We don't just provide the highest quality products and service; we deliver solutions.

Providing solutions for your conveyor issues is at our core. From engineers to designers, from technicians to product specialists. It's what drives everyone at ASGCO®, and the job is never done until our customer is satisfied.....***IT'S OUR GUARANTEE!***

MAXIMIZING EFFICIENCY

INCREASING PRODUCTIVITY

IMPROVING SAFETY

A HERITAGE OF INNOVATION

Since our founding in 1971, by Alfred S. Gibbs and his son Todd, ASGCO® has pioneered some of the most effective products in use for improving bulk material handling. We believe in taking care of the customer with great quality products and exceptional service. This has been a successful and standard policy at ASGCO® for many years and will continue in the future.

FOCUSED ON SOLUTIONS

At ASGCO® we continue to strive to make the handling of bulk materials cleaner, safer, and more productive. No matter what the basic assignment, we always seek out ways to increase production and to reduce operating costs. ASGCO® uses innovative products and engineered solutions to solve problems happening now and to prevent problems from happening in the future.

JUST ASK ASGCO!

What may seem like a problem to our customers is just a chance for us to put every resource we have in motion. And no matter what the basic assignment, we always seek out ways to increase production and to reduce operating costs. Our team is always ready. ***All you need to do is ask ASGCO®!***

"Today, ASGCO® "Complete Conveyor Solutions" is recognized as the worldwide leader in bulk conveyor material handling systems."

OUR PROMISE...

Applies to every client, every time.
Always think and work in terms of solutions that are best for the customer in the long term. Develop and sell products that satisfy the practical working needs of our customers.

PROVIDING THE WORLD'S MATERIAL HANDLING INDUSTRY WITH

EFFICIENT, SAFE AND PRODUCTIVE COMPLETE CONVEYOR SOLUTIONS

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WEAR LINERS Longest Lasting, Abrasion Resistant

ASGCO® Conveyor Wear Liners products are the longest lasting, most cost effective in the industry!

Bulk handling conveyor belts have many applications in today's mining and quarry industries. Because of their reliability, versatility, and range of capacities; belt conveyors are the most common type of bulk handling conveyor belt system. Wear Liners are designed to be an integral part of any bulk handling conveyor system.

ASGCO® manufactures a variety of conveyor wear liners with many options and sizes to choose from. Designed to handle any tough hard rock mining application. Abrasion resistant, modular, high-wear material to line belts, chutes, and bin impact areas; ASGCO® wear liner products are the longest lasting, most cost effective in the industry.

Armorite™ (White Iron)

Armorite™ is an extremely hard, laminated bi-metallic, impact and wear resistant composite, which has a nominal hardness of 700 Brinell (63Rc) produced by combining a highly alloyed chromium-molybdenum white iron (to AS 2027 15/3 Cr/Mo) and metallurgically bonding it to a mild thick steel backing plate. The resultant bond possesses high shear strength of over 250 Mpa and will not separate.

X-Wear™ (Ceramic)

ASGCO® **X-Wear**™ will substantially reduce your operating costs when compared to any other lining material. The smooth laminar surface of X-Wear™ provides the optimum sliding surface for bulk material handling. Forget UHMW and other plastics that distort, buckle and wear out. The low coefficient of friction and dimensionally stable surface of X-WEAR™ will provide years of maintenance-free service.

X-Wear™ MDX

ASGCO **X-Wear**™ **Mine Duty Ceramic Wear Liners** are made of extremely hard ceramics that provide unsurpassed resistance to abrasive wear while the rubber effectively dampens the impact forces that can crack the ceramic rods. The resilient rubber matrix that surrounds the ceramic rods is hot vulcanized for superior adhesion.

Nitronic SX

Nitronic Sx™ **Stainless Steel** is a nitrogen-strengthened stainless steel developed for applications requiring good level corrosion resistance and durability. The high work-hardening rate Nitronic SX™ stainless steel results in a high-strength material with superior abrasion resistance and elongation superior to Type 304L.

Chromium Carbide Overlay (CCO) Wear Plate

ASGCO's® **Chromium Carbide Overlay (CCO) Wear Plate** is an extra hard clad plate with additives that gives even higher abrasion resistance in high stress applications with moderate to low impact conditions. It is produced using a mild steel base plate and hard-faced / overlayed with our proprietary high chromium wire. ASGCO's® Chromium Carbide Overlay (CCO) Wear Plate can be formed and rolled.

ASGCO® Armorite® is guaranteed to last 5-6 times longer than Ar500!

Armorite® is an extremely hard, laminated bi-metallic, wear resistant composite, which has a nominal hardness of 700 Brinell (63Rc) produced by combining a highly alloyed chromium-molybdenum white iron (to AS 2027 15/3 Cr/Mo) and metallurgically bonding it to a mild thick steel backing
plate. The resultant bond possesses high shear strength of over 250 Mpa and will not separate.

Armorite® provides maximum impact and abrasion protection in high wear areas, with the mild steel backing cushioning the white iron enabling it to withstand impact. Armorite® is easily weldable to areas of the conveyor system with minimal preparation providing unsurpassed resistance to

Armorite® Typical Bond Zone

- White iron: Modified AS2027 15/3 Cr Mo
- Vacuumed brazed and liquid nitrogen cooled to achieve a high strength joint
- Mild steel backing offers strength, machinability, and impact resistance
- Can be welded in place, through-bolted, stud bolted, drilled, tapped, keyed
- Ease of fitment, very versatile

Armorite® Benefits

- Lower operating costs
- Longer Service when compared to conventional materials
- Increased production
- Improved product efficiency
- Increased equipment availability

Armorite® Applications

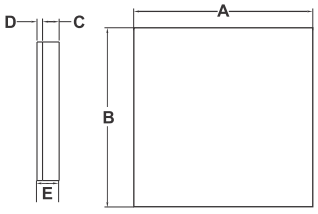
- Chute Linings
- Rock-Box Edges
- Grizzly Caps/Screens
- Transfer Points
- Impact Plates
- Distributor Plates
- Arm/Hub Liners
- Bin Liners
- Hopper Wear Plates
- Divider/Splitter Bars
- General Wear Protection
- Liner Panels
- Wear Plates
- Wear Bars
- Shaped Wear Bars
- Skid Bars
- Grizzly Bars
- Chocky Bars
- Wear Buttons
- Wear Donuts
- Shredder Tips
- Knife Edges

ARMORITE® Protection for Extreme Conditions

Armorite® Smooth Conveyor Wear Plate

Armorite® Smooth Conveyor Wear Plate present a very cost effective method of extending wear life in chutes, hoppers, bins, impact walls and screen plates.

- Extreme abrasion resistance across a range of applications
- Custom designs to meet customer requirements
- Optional Nelson studs supplied ex works
- Liner size allows for localized replacement in high wear areas
- Reduced downtime & reduced maintenance costs
- 3-4 times the life of AR500.



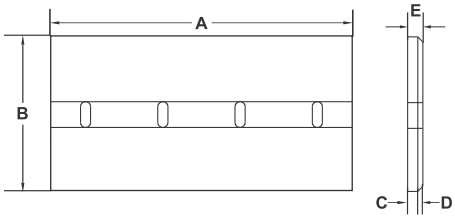
Part Number	Description	A Length	B Width	C Thick	D Thick	E Total	Wt Lbs
ASG-AMR-5X10X1	Wear Plate	10”	5”	¾”	¼”	1”	19
ASG-AMR-6X12X1	Wear Plate	12”	6”	¾”	¼”	1”	19
ASG-AMR-12X12X1	Wear Plate	12”	12”	¾”	¼”	1”	9.5

Custom sizes available at customers request.

Armorite® Skirtboard Conveyor Wear Liners

Armorite® Skirtboard Conveyor Wear Liners protect your skirtboard and provide a significantly longer wear life than currently used skirt liners. The skirt liner is produced from ⅞” thick Armorite® that is enhanced with a 5⁄16” thick mild steel producing a product that is 700 BHN with a high impact resistance. It can be used for all conveyors and transfers where the eradication of spillage or centralization of load is required.

- Reduces downtime and maintenance costs
- Designed to be rotated 180º for longer wear life
- Custom sizes available
- For all conveyors and transfer points



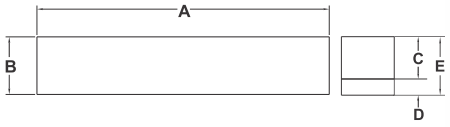
Part Number	Description	A Length	B Width	C Thick	D Thick	E Total	Wt Lbs
ASG-AMR-30X12X23.5	Skirboard Liner	23 ⅝”	12”	⅞”	5⁄16”	1 3⁄16”	84

Custom sizes available at customers request.

Armorite® Grizzly Screen Cap Conveyor Wear Bars

Armorite® Grizzly Screen Cap Conveyor Wear are available in a range of thicknesses and lengths. Used in grizzly screens, chutes, hoppers, bins, rock box edges and other high wear applications.

- Superior wear life when compared to conventional alloys used such as manganese steel, clad overlay and other alloys
- Cost effective method for protecting your equipment
- Variety of simple, rugged sizes and shapes available
- Ideal for aggregate & coal mining applications
- Reduces conveyor downtime and maintenance



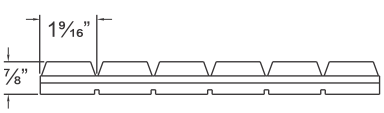
Part Number	Description	A Length	B Width	C Thick	D Thick	E Total	Wt Lbs
ASG-AMR-30X2X7.5	Wear Bar	7 ½ ”	2”	1 ⅛”	⅜”	1 ½”	4.9
ASG-AMR-30X3X6	Wear Bar	6”	3”	1 ⅛”	⅜”	1 ½”	11.7
ASG-AMR-50X2X1	Wear Bar	9”	2”	1 ⅝”	⅜”	2”	10

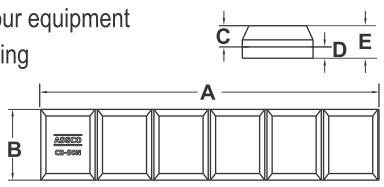
Custom sizes available at customers request.

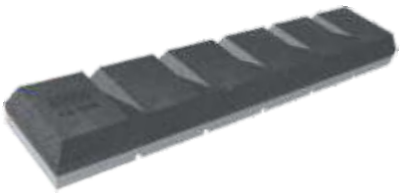
Armorite® Chocky Conveyor Wear Bar

Armorite® Chocky Bars offer protection on contoured surfaces such as chute linings, buckets, loaders, excavators and dragline machines.

- Easy formation to convex or concave surfaces
- No pre-heating or post-heating required when welding bars in place
- Cost effective method for protecting your equipment
- No storage problems or excessive cutting







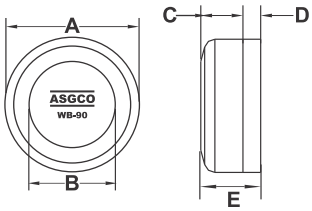
Part Number	A Length	B Width	C Thick	D Liner	E Total	Wt. Lbs.
ASG-AMR-CB-40	9 ½”	1 9⁄16”	9⁄16”	5⁄16”	⅞”	3.3
ASG-AMR-CB-40N	9 ½”	1 9⁄16”	9⁄16”	5⁄16”	⅞”	2
ASG-AMR-CB-50N	9 ½”	2”	9⁄16”	5⁄16”	⅞”	4.2
ASG-AMR-CB-65N	9 ½”	2 ¾”	9⁄16”	5⁄16”	⅞”	5.5

Custom sizes available at customers request.

Armorite® Conveyor Wear Button

Armorite® Wear Buttons are a circular domed shape wear part that provides maximum protection while minimizing the effects of impact. The round shape virtually eliminates any chance of a weld cracking.

- Ideal for small impact and wear areas
- Easy to use and install with no pre or post heating
- Great alternative to labor intensive hard facing
- Available in diameters from 60mm up to 150mm



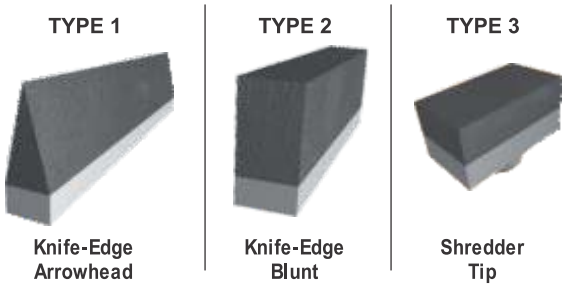
Part Number	A Dia	B Length	C Width	D Thick	E Total	Wt. Lbs.
ASG-AMR-WB-60	2 ⅜"	1 ⅝"	11⁄16"	7⁄16"	1 ⅛"	1.5
ASG-AMR-WB-90	3 ½"	2 ¾"	11⁄16"	7⁄16"	1 ⅛"	3.3

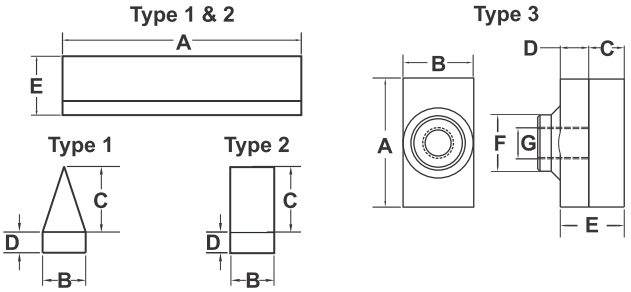
Custom sizes available at customers request.

Armorite® Wear Knife Edge & Shredder Tips

Armorite® Wear Knife Edges and Hammer/Shredder Tips is a 700BHN weld on or bolt on; specifically designed for the Sugar and Re-cycling industries.

- Cane knife edges and tips are easy to install and maintain
- Increased production and shredding efficiency
- Maintain sharp edges from the start of use and retain their edge sharpness and cutting efficiency longer than hard facing





Part Number	Type	A	B	C	D	E	Wt Lbs
ASG-AMR-KEB-8X1-A	1	8"	1"	1½"	½"	2	5.5
ASG-AMR-KEB-8X1-B	2	8	1"	1 ½"	½"	2	5.5

Part Number	Type	A	B	C	D	E	F	G	Wt Lbs
ASG-AMR-ST-3x2x2	3	3 ½"	2"	1"	¾"	1 ¾"	1 ⅝"	⅞"-14 UNF	5.5

Custom sizes available at customers request.

Internal Skirtboard Liners

Internal Skirtboard Liners protect your skirtboard and extend the life and effectiveness of your sealing compound. Use the straight design where belts are fully loaded and full chute width needs to be maintained. The angled deflector wear liner will force larger material to the center of the belt. Any small fines that work their way under the deflector have a path to exit the skirting area without being forced against the sealing compound.

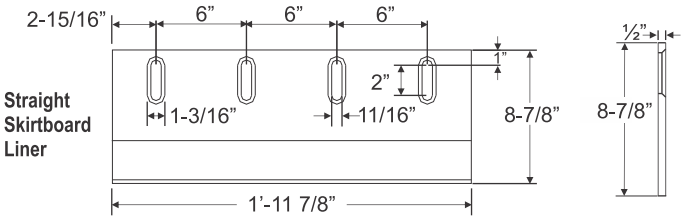
- Lowest Cost Per Ton
- Material Flow with smooth laminar surface
- Reduces downtime
- Corrosion resistant
- Retrofit to worn out chutes and hoppers

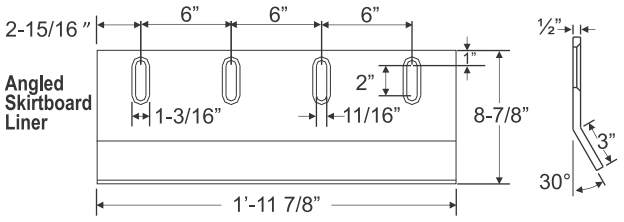
Angled Hardox 400

Straight Hardox 400

Part Number	Description	Wt Lbs
ASG-SKRT-LIN-HAR-24-1/2-A	Deflector Wearplate, Hardox 400, Angled	30
ASG-SKRT-LIN-HAR-24-1/2-S	Deflector Wearplate, Hardox 400, Angled	30

Custom sizes available at customers request.





X-WEAR™ Ceramic Wear Liners

The Wear and Impact Resistant Alternative That Makes Steel and Chromium Carbide Wear Plate Obsolete!

ASGCO® has developed a unique impact and wear resistant liner which features the excellent wear resistant properties of ceramics combined with the superior energy-absorbing characteristics of rubber. X-Wear™ sets new standards of performance in the toughest industrial applications.

Operating cost reductions of 25-90% are typical when X-Wear™ is used to replace steels, chrome carbide overlays, rubber, and urethane. ASGCO® X-Wear™ will substantially reduce your operating cost when compared to any other lining material.

X-Wear™ Ceramic liners have proven to be cost effective compared to all types of lining materials including manganese, NI-hard and high Brinell carbon steel plate in applications ranging from primary crushed ore to abrasive slurry or fine sand. These liners also provide significant reductions in noise pollution compared to steel liners and are extremely versatile and are suitable for many types of installations.

Lowest Cost Per Ton Guaranteed!

Use the following formula to compare X-Wear™ to your current system:

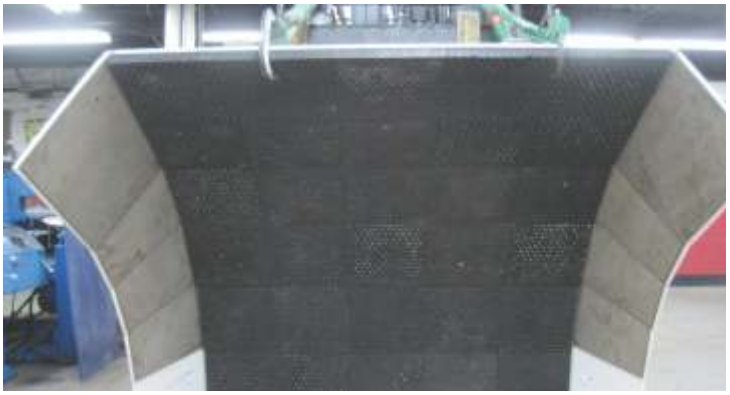
$$\frac{\text{Material Cost + Installation + Downtime}}{\text{Tons Handled}} = \text{CPT}$$

X-Wear™ Typical Installations

- Transfer points in conveyor systems
- Screen chutes
- Deflectors Feeders
- Crusher Main Frame Liners
- Screen Feed Box Liners
- Discharge Lip Liners
- Launder Liners
- Chute Liners
- Dead Bed Lip Liners

Benefits of Using X-Wear™

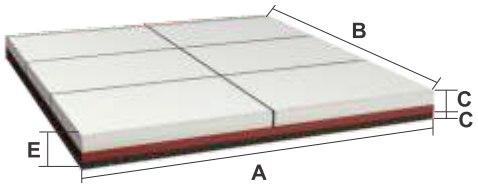
- No Welding
- Easy Installation
- Light Weight
- Reduces Noise
- Corrosion Resistant
- Impact Resistant
- Smooth Surface
- Longest Wear Life Available
- No Waste, Reduces Inventory



Hood lined with X-Wear™ Mine Duty Ceramic Wear Liners in the center and Nitronic Sx™ on each side.

X-Wear™ Ceramic Wear Liners

ASGCO® X-Wear™ Ceramic Wear Liners are a resilient wear resistant panel made up of high density abrasion resistant ceramic bonded to a mild steel backing plate with impact resistant urethane compound. It easily out performs steel, chromium carbide overlays and conventional ceramics. ASGCO® X-Wear™ Ceramic Wear Liners will substantially reduce your operating costs when compared to any other lining material. The ceramic is bonded to a ¼" steel plate using impact resistant urethane epoxy.



- X-Wear™ is lightweight and easy to install
- The smooth laminar surface provides the optimum sliding surface and material flow for material handling.
- The remarkable structural integrity of X-Wear™ makes it ideal for direct retrofitting without expensive repairs
- Lowest cost per ton

Part Number	A Width	B Length	C Ceramic Thickness	D Steel Thickness	E Total	Wt. Lbs.
ASG-XW-12X12X2	12"	12"	2"	1/4"	2¼"	47
ASG-XW-12X12X1	12"	12"	1"	1/4"	1¼"	29
ASG-XW-12X12X3/4	12"	12"	3/4"	1/4"	1"	25
ASG-XW-12X12X1/2	12"	12"	1/2"	1/4"	¾"	21

Custom sizes available at customers request.

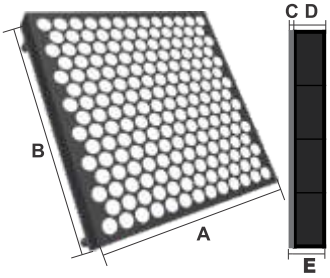
X-Wear™ Mine Duty Ceramic Wear Liners

ASGCO® **X-Wear™ Mine Duty Ceramic Conveyor Wear Liners** are made of extremely hard ceramics that provide unsurpassed resistance to abrasive wear while the rubber effectively dampens the impact forces that can crack the ceramic rods. The resilient rubber matrix that surrounds the ceramic rods is hot vulcanized for superior adhesion.

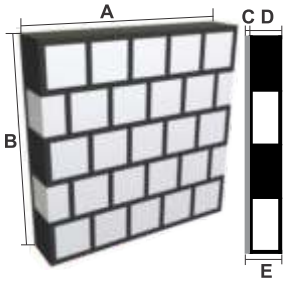
ASGCO® **X-Wear™ Mine Duty Ceramic Conveyor Wear Liners** are manufactured to fit into existing applications and can be easily installed by studs welded to the backing plate, counter bored holes molded into the liner, or by welding.

- Advanced hard ceramic wearplate
- ¼" steel backing suitable for stud welded mounting studs
- Excellent wear protection for tough mining conditions
- Unsurpassed abrasion resistance
- Unique zigzag pattern prevents wear channeling
- Plates are available with factory welded studs
- Longest wear life available

Round 1¾" Ceramic



Square 2 3/8" Ceramic



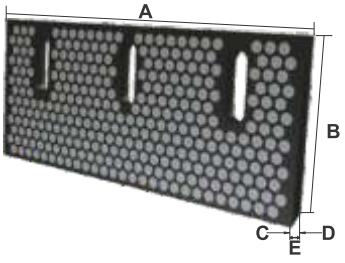
Part Number	A Width	B Length	C Ceramic Thickness	D Steel Thickness	E Total	Wt. Lbs.
ASG-12X12X1.25-MDX	12"	12"	1"	1/4"	1¼"	20
ASG-12X12X2.375-SDX	12"	12"	2"	3/8"	2 ⅜"	40

Custom sizes available at customers request.

X-Wear™ Ceramic Canoe Skirt Liners™

ASGCO® **X-Wear™ Ceramic Canoe Skirt Liners** are highly effective for sealing inside the skirtboard, controls the material until it becomes stable and protecting the skirt wall from wearing. The liner is ¼" mild steel backing plate that is vulcanized to an abrasion / impact resistant 60 durometer rubber (or urethane) with a ceramic cylinder (or squares) matrix.

- Optimum sealing inside the skirtboard
- Easy to handle and install
- Single or double beveled edge for reversible wear life
- Impact and abrasion resistant
- Modular section design for easy replacement



Part Number	A Width	B Length	C Ceramic Thickness	D Steel Thickness	E Total	Wt. Lbs.
ASG-12X24X1.25-MDX-C	24"	12"	1"	¼"	1¼"	40
ASG-12X36x1.25-MDX-C	36"	12"	1"	¼"	1¼"	60

Custom sizes available at customers request.

ASGCO® Urethane Products are the Highest Urethane Compound on the Market!

ASGCO® Urethane has been manufacturing polyurethane injection molding parts for several industries. Injection **molded polyurethane** products have been produced for various industrial sectors including mining, transportation, building and construction, machinery and foundry, textiles, fiberglass, steel and aluminum and seals. We mold all of our standard and custom formulas as well as our entire range of durometers, 20A to 80D.

The diverse properties of castable polyurethane make it the leading choice of engineers looking for long lasting materials for their high load, high stress environments. Polyurethane routinely outperforms plastic, rubber and steel in its overall ability to resist harsh environmental factors such as abrasion, heat, solvents, oil and acid. In addition, polyurethane's noise abatement ability makes it the preferred material in chain-drive designs, conveyor belt systems and assembly line environments. In today's manufacturing environments where the cost of downtime is measured in thousands of dollars per hour, polyurethane's incredible durability actually increases your company's profitability.

Compression molding responds to a wide range of product sizes, shapes and performance requirements. Our molded polyurethane parts reduce the time and expense of machining parts from solid stock plastic.

If you are seeking a world-class polyurethane manufacturer and a leader in molded polyurethane products and technology, then ASGCO® is here to help. We offer a vast array of polyurethane compounds for your polyurethane molded parts.

Polyurethane molding produces a wide variety of products for most industries. ASGCO® Urethane has been the polyurethane specialist that companies around the world have depended on to gain all of the advantages of polyurethane for a wide range of parts.

Edge Over Plastics	Edge Over Metals	Edge Over Rubber
High Impact Resistance	Reduce Weight	High Cut and Tear Resistance
Superior Abrasion Resistance	Superior Abrasion Resistance	Superior Abrasion Resistance
Resilience	Non Marking	Oil Resistance
Superior Flex Properties	Lower Fabrication Costs	Higher Load Bearing Capacity
Noise Reduction	Noise Reduction	Resilience
Low Pressure Tooling	Corrosion Resistant	Low Pressure Tooling
Lower Fabrication Costs	Non Marking	Non Marking
Greater Load Bearing	Non Conductive	Ozone Resistance

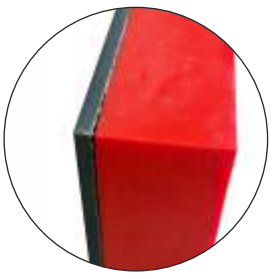
ASGCO® Urethane Varieties

Non-Reinforced - sheets have no backing. They are the most lightweight and flexible of all Diamondback® sheet types and can be hand-formed.

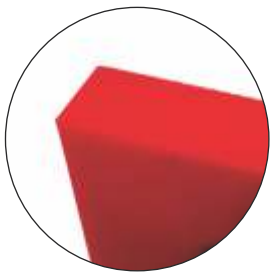
Expanded Metal-backed - sheets are backed with 16-gauge steel that makes them more rigid and flat. The metal backing also provides a structurally sound "stopping point" for bolt heads.

Perforated Metal Plate - Urethane sheets are backed with perforated metal. The small openings accommodate self-tapping metal screws.

Weldable or Stud-Welded Studded Metal Plate - Metal plates (¼") welded to the back of these urethane sheets allow them to be welded or bolted onto metal surfaces.



Steel Backing



Non-Reinforced Backing

Urethane Canoe Liner

ASGCO® **Urethane Canoe Liners** are engineered to absorb impact and abrasion in all types of material transfer operations. Made from our exclusive urethane compound with a durometer of 80/85, along with steel backing plate for extra added support. These type of liners are very effective, especially where material

is being bulk loaded to help control leakage in and around load zone areas. ASGCO® Urethane Canoe Liners are a key solution in decreasing downtime and increasing production due to spillage, while maintaining a safe working environment.

- Standard sizes available in 1", 2"and 3" thickness
- 9" wide and 48" long
- Available in beveled edge or square edge
- Slotted holes on 12" centers for ease of adjustment in the tightest applications
- Liners can be adjusted easily up or down to achieve the best fit.
- Custom sizes available on request.

Urethane Canoe Liner with steel backing (beveled)
Part Number
M-ASG-U-CL-48X9X1-B-1
M-ASG-U-CL-48X9X2-B-1
M-ASG-U-CL-48X9X3-B-1

Urethane Canoe Liner with steel backing (straight)
Part Number
M-ASG-U-CL-48X9X1-S-1
M-ASG-U-CL-48X9X2-S-1
M-ASG-U-CL-48X9X3-S-1

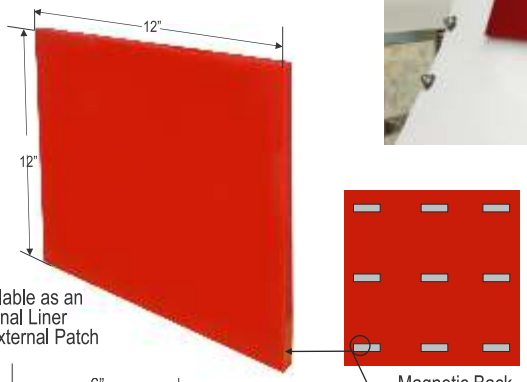
X-Wear™ Urethane Magnetic Liners and Patches

X-Wear™ Urethane Magnetic Liners and Patches provide a temporary yet reliable patch system that can be installed quickly and safely without the use of welders or bolt fastening systems. This allows for minimal downtime, in repairing a leak or wears spot on chutes or load points to name a few. When time allows, the ASGCO® X-Wear Urethane Magnetic Patch™ can easily be removed, so that a more permanent repair can be performed.

- Constructed with ASGCO-thane® Polyurethane
- Imbedded High strength rare earth magnets allow for installation using magnetic force alone
- No Bolting - No Welding - No Cutting to the applied area
- Eliminates the need for Hot Work permits in most areas
- Stay securely in place on vibrating screens and chutes
- Can be repositioned easily and safely, when time permits, for the repair to be done permanently
- Can be field trimmed to fit unusual surfaces or conditions, due to the polyurethane material

AVAILABLE SIZES

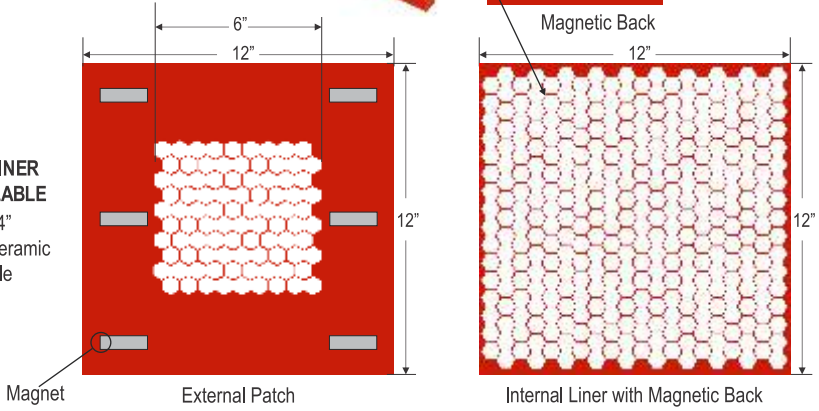
- 12"x12"x3/4"
- 6"x6"x3/4"
- Custom sizes available upon request.



Urethane Magnetic Liner or Patch	
Part Number	Size
ASG-3/4-12x12-UMWP	3/4x12x12
ASG-3/4-6x6-UMWP	3/4x6x6
Urethane Magnetic Patch with 6" Ceramic	
ASG-3/4-12x12-UMWP-6C	3/4x12x12-6
Urethane Magnetic Internal Liner w/ 12" Ceramic	
ASG-3/4-12x12-UMWL-12CL	3/4x12x12-12

CERAMIC LINER ALSO AVAILABLE

- 12"x12"x3/4" with 6" of ceramic in the middle



Urethane Screen Feed Box Liners and Side Wear Liners

ASGCO® has expanded the use of their Cast Urethane products to include screen wear parts. Rubber Compounds that are compounded to 90 or 95A durometer have compromised physical properties. All of our urethane wear products are cast from our exclusive ASGCO-thane™ polyurethane compound with a durometer of 80/85, along with steel backing plate for extra added support.

Abrasion Resistant – Cast urethane screen wear products are molded using our high-grade polyurethane compounds that last longer and offer superior abrasion, cut, and tear resistance when compared to rubber.

Higher Load-Bearing Capacity - better compression set, and superior tolerance to greases, oils, oxygen, and ozone.

Biodegradable - man-made urethane can be easily formulated to outlast rubber and stand up to sunlight and harsh outdoor environments.

Multiple Steel Options – fully boxed with steel, or only a steel back allows for full custom options. Can be stud or plug welded.

Urethane Screen Side Wear and Feed Box Liner
ASG-URE-IP-LxHxW

Screen Feed Box Liners

Screen Feed Box Liners are patterned for a direct replacement of the current liner configuration being used, or depending on the wear characteristics change the layout for maximum wear life. Liners have the ability to have various sized and shaped ceramics inserted to increase the longevity of the liner.

Screen Side Wear Liners

Screen Side Wear Liners are boxed in with mild steel or hard plate to prevent premature edge wear or damage. Bolt patterns, sizes, and thicknesses are fully customizable to increase the wear life for your operation. In house engineered to allow for an ease in duplicity.

Urethane Classifier Shoes

Urethane Classifier Shoes feature our special wear-resistant urethane material at the outer edge of the shoe (the area that sees the most abrasion) to extend the wear life of the shoe. Longer shoe life means you experience less maintenance downtime and lower operating costs, resulting in higher productivity and profits.

Abrasion Resistant – Classifier Shoes are molded using our high-grade urethane compounds that lasts longer and are resistant to abrasive wear.

Ceramic Beads – can also be added to the edges as an extra option against wear.

Interchangeable – between right and left hand screws, reducing inventories.

Can Be Used as Replacement Wear Parts – on classifiers and screw conveyors in OEM equipment.

Can be made for custom applications.

Nitronic SX™ Stainless Steel Wear Plate

Nitronic SX™ Stainless Steel Wear Plate is a nitrogen-strengthened stainless steel developed for applications requiring good level corrosion resistance and durability. The high work-hardening rate Nitronic SX™ stainless steel results in a high-strength material with superior abrasion resistance and elongation superior to Type 304L.

- Excellent Wet and Dry Abrasion Resistance
- Work Hardened Properties
- Good Resistance to Corrosion.

Alloy	Hardness Rockwell	Wear mm^3
Nitronic SX	B91	4.89
AK Steel 17-4 PH	C46	7.00
Type 304	B75	7.76
Type 409	B85	10.15
4340 (AR 500)	C49	36.54

Wear Resistance

The following data demonstrate the outstanding corrosive wear resistance to AK Steel Nitronic Sx™ Stainless Steel under various sliding conditions. The stainless steels as a class are much more abrasion resistant than abrasion resistant (AR) steels under even mildly corrosive conditions. AK Steel Nitronic SX™ Stainless Steel is more cost effective than Types 409 and 304 that are sometimes used in wet abrasive applications.

Metal to Metal Wear*				
Alloy	Hardness Rockwell	Wear, mg/1000 cycles**		
		25 RPM	105 RPM	415 RPM
Nitronic SX	B93	1.9	3.3	2.2
304	B85	13.9	12.8	7.6

* Self-mated crossed cylinders, 16lbs (71 N), 10,000 or 40,000 cycles, unlubricated, in air, room temperature, corrected for density differences.

** Relative wear rate for comparison for alloys and not for design purposes.

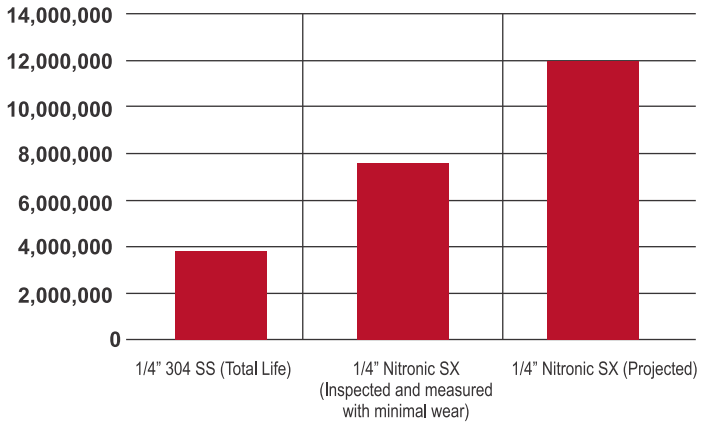
Nitronic SX Stainless Steel wear liners can be designed and fabricated in standard sizes, to allow the stocking of replacement liners. This can minimize crucial down time.

Corrosive Wear in a Coal Mine Effluent*				
Alloy	Hardness Rockwell	Cumulative Volume Loss, mm^3		
		Period 1	Period 2	Period 3
Nitronic SX	B93	1.31	4.27	7.13
304	B85	1.58	4.98	8.3

* Test Conditions: Laboratory ball mill, 0.64 m/s, room temperature, Five 16-hour periods, pH 6.7, 2 liters of coal mine effluent, 0.2 liters pea gravel – 6.4mm +3.2mm, duplicate sheets.

Nitronic SX Stainless Steel wear liners can be cut, bent and formed to meet the contours of most existing wear areas.

Barge Loading Chute Liner Tons, Sized Clean Coal



Nitronic SX Stainless Steel has the same weld ability and bending capabilities as standard 304 stainless steel.

CHROMIUM CARBIDE Moderate Abrasion Resistant Wear Plate

Chromium Carbide Overlay (CCO) Wear Plate

ASGCO's® **Chromium Carbide Overlay (CCO) Wear Plate** is an extra hard clad plate with additives that gives even higher abrasion resistance in high stress applications with moderate to low impact conditions. It is produced using a mild steel base plate and hard-faced / overlayed with our proprietary high chromium wire. ASGCO's® Chromium Carbide Overlay (CCO) Wear Plate can be formed and rolled.

- Cost effective solution when compared to traditional abrasion-resistant steels
- Recommended for resistance to wear by abrasion, fretting, cavitation, and particle erosion in high temperature applications (up to 1100°F).
- Ideal for mild to moderate impact abrasion resistance.
- Low maintenance cost and easy installation.
- The overlay surface of CCO plate will consist of a series of beads with numerous hairline cracks in them. These properly spaced crosscheck cracks are a natural phenomenon and are beneficial to the material. The cracks propagate through the overlay and end at the fusion line.

APPLICATION SPECIFICATIONS

- **Cutting -** Plasma burning, air arc, abrasive saw or water jet.
- **Welding -** Our CCO plate can be joined by welding the substrate to substrate using 309 weld wire/rod.
- **Bending -** Using a press brake, forming should be perpendicular to the weld pass direction. Plate rolling should be performed in the directions of the overlay beads.

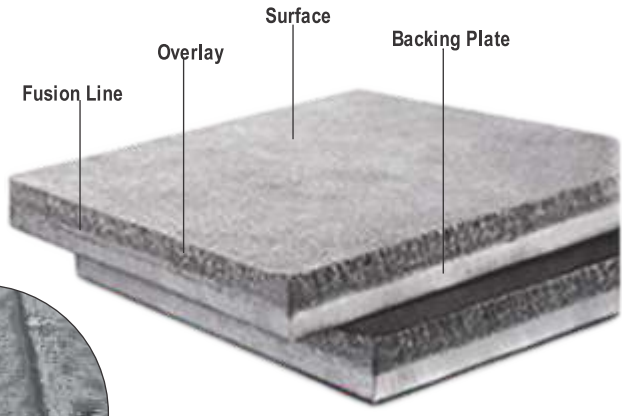
TECHNICAL SPECIFICATIONS & CHEMICAL COMPOSITION:

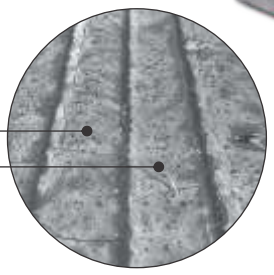
- Hardness ranges from 58-62 HRC based on weld thickness
- Superior wear resistance
- Optimum solution for most industrial applications

Chemical Composition AG-1000					
C%	Mn%	Cr%	B%	Mo%	Hardness HRC
4,5-5,5	2,0-3,0	27,0-33,0	0,7-1,0		60±2

	mm		in	
	Width	Length	Width	Length
DIMENSION: PLATE	1500	3000	59”	118”
DIMENSION: OVERLAY	1400	2950	55”	116”

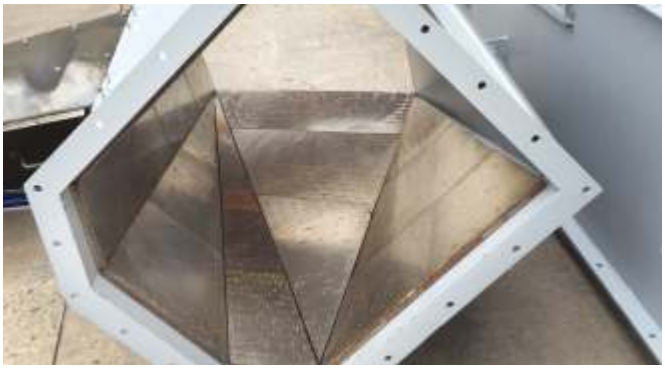
Specification		
Base	Clad	# of Single Pass
1/4”	1/4”	1
3/8”	3/8”	2
½”	1/2”	2





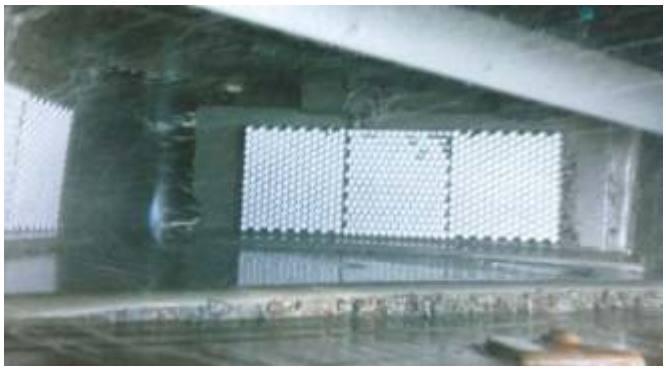
Armorite® (AR) Internal Skirtboard Liners

X-Wear™ Ceramic Liner



Nitronic SX

Urethane Canoe Liner



X-Wear™ Mine Duty Ceramic Wear Liner

Armorite® Smooth Wear Plate