



# Wear Resistant Steel

**20 times longer wear life than average 400 AR plate**



- Each plate is batch numbered for wear audit traceability
- Increased carbide count per square inch
- Minimum backing thickness for increased chrome overlay
- A36 backing plate for ease of fabrication and studing
- Extreme QAQC audit of the manufacturing process
- Certified wear plate by various globel mining companies
- Conforms to the global specification spec 1, 2 and 3

**Composite wear plate made up of a hard, abrasion resistant, surface layer** fused to a structural steel backing plate. The refined hyper-eutectic microstructure in the overlay provides excellent wear resistance against a wide range of wear mechanisms.

**Base Material is a standard steel substrate** that is compliant with AS3678 GRADE 250 Steel or an equivalent in thickness ranges from 6 – 25mm. Other grades can be supplied upon request.

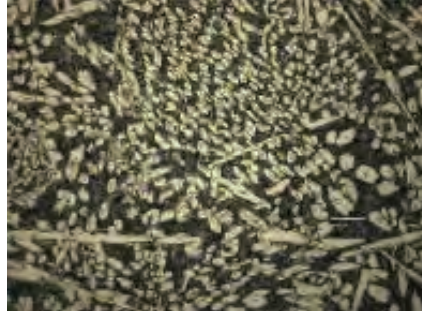
**The overlay material is an austenitic chromium carbide alloy** consisting of a uniform, high density distribution of fine primary M7C3 carbides in a matrix of carbide and austenite as described in AS2576-2355.

# Mining & Quarry Applications

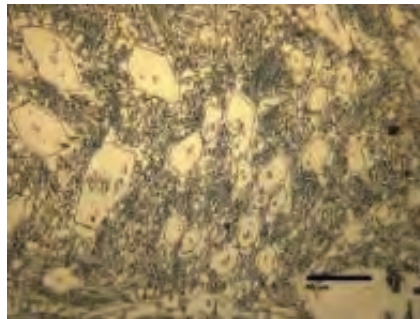
- Apron Feeders
- Bin Liners
- Bucket Liners Bottom
- Conveyor Skirt Liners
- Crusher Jaw Cheeks
- Crusher Main Frame Liners
- Cyclones
- Disposable Chutes
- Dozer Blades
- Dozer Liners
- Dozer Push Arms
- Grizzly Bars
- Loader Liners
- Pan Feeders
- Screens
- Shovel Buckets Inside
- Shovel Buckets Outside
- Skirt Boards
- Train Load Out Chutes
- Transfer Chutes
- Truck Bed
- Truck Liners
- Underground Buckets

**Thicknesses from 3/8 – 2 3/8**

## Microstructure



Chemical Analysis (Typical)  
Hardness (Typical)  
Micro Hardness  
Volume Fraction Primary Carbide  
Total Carbide Content (Typical)  
Operating Temperature



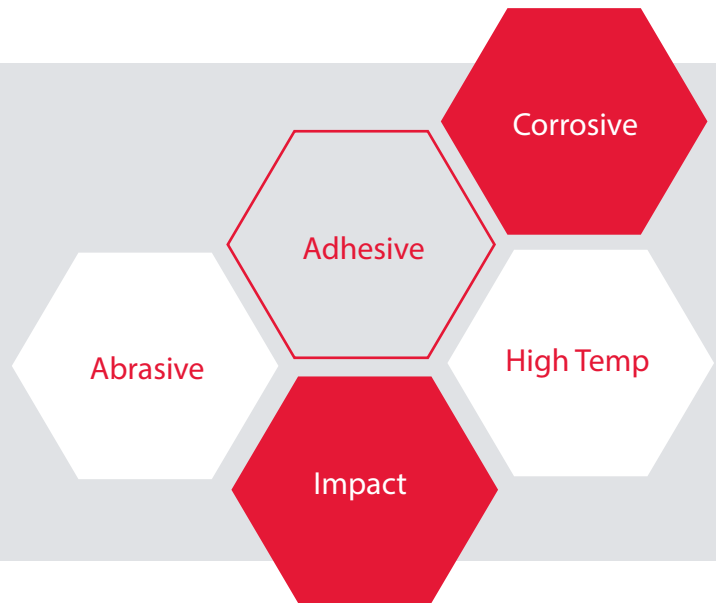
4.2% C, 33% Cr, 2.2% Mn, 1.5% Si  
630 HV50  
Matrix Up to 580 HV  
Carbide Up to 1600 HV  
15 – 35%  
60%  
Up to 550° C

Have a question about a part you need? Call 800.328.0225 or email [info@unifiedscreening.com](mailto:info@unifiedscreening.com).

Find a complete list of OEM's at [www.unifiedscreening.com](http://www.unifiedscreening.com)

# What kind of wear are you experiencing?

Wear can be divided into five main categories:



Mobile Plant / Fixed Plant  
Medium Wear  
Medium Impact

Fixed Plant Mobile Plant  
Medium Wear Abrasion  
High Impact

Fixed Plant Mobile Plant  
High Extreme Wear  
Medium Impact

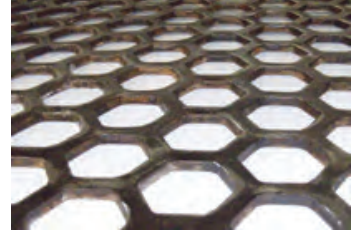
## SURFACE SPECIFICATIONS

- Thickness Range: 1.5 – 5  $\mu\text{m}$  (0.000118" - 0.00019685")
- Application Temp: 150-350  $^{\circ}\text{F}$  \*customer & alloy dependent\*
- Friction vs. Steel: 0.1 to 0.005 (Ambient Conditions)
- Service Temperature: < 750  $^{\circ}\text{F}$
- LC Values (ASTM-C1624) LC1- 22N --- LC2- No Failure
- Hardness: Up to 2500 HV
- Roughness (Ra): < 5 nm
- Surface Energy: Extremely Low
- Wear Type: Adhesive/Abrasive



# Need screens? We have got you covered.

Unified manufactures and maintains the largest inventories of woven wire, rubber and polyurethane screening media.

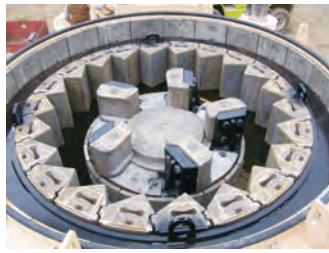


- Square, Slotted, and Clean Screens
- Urethane Tension Mats and Urethane/Rubber Modular Systems
- Our patented Tufflex™ Wire
- SuperFlow Self-Cleaning Media
- Punch Plate
- Channel Rubber and Rails
- Installation and Replacement Components

## Looking for wear parts? We stock it.

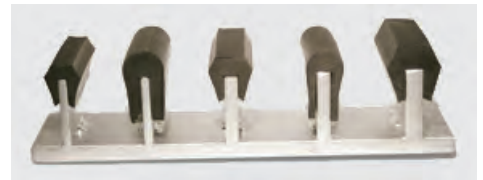
Unified stocks the largest inventory of:

- Jaws, Mantles, Bowl Liners, Concaves and Gyrators
- VSI/HSI Parts including Shoe, Anvils, Blow Bars and more



## Want to be able to pull everything from the same pallet?

- Clamp Rails
- Installation Hardware
- Channel Rubber



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