



**TruWEAR**

**PERFORMANCE STEEL**

# TruWEAR

## CMC'S ABRASION RESISTANT STEEL

Manufacturers are looking for steel that provides abrasion-resistant toughness and extended life for their equipment. TruWEAR's superior durability, toughness and strength will improve a product's service life in the most demanding environments, increase payload capacity, decrease weight and withstand anything thrown its way.

Melted and manufactured in the USA, our abrasion-resistant steel delivers the hardness and toughness needed to meet the most challenging environments.



As an industry leader in the high-performance steel market, TruWEAR steel provides the endurance manufacturers require for products that will weather even the toughest challenges.

- » **Hardness** — TruWEAR steel endures the most demanding environments over the entire service life of the product. Our advanced heat treating, quenching and tempering processes produce a superior hardness combined with high strength that results in a lightweight, strong and wear-resistant steel to withstand harsh conditions.
- » **Toughness** — TruWEAR's design provides for a combination of wear resistance and durability that sets it apart from other types of steel when it comes to toughness. A key aspect of its durability and toughness is its ability to endure heavy impact without permanent deformation or cracking when stressed or impacted beyond its yield point.
- » **Formability and Weldability** — The refined chemical composition, along with the heat-treating, quench and tempering processes used to create TruWEAR, creates an abrasion-resistant steel with the ductility that is necessary for formability and fabrication in the manufacturing process. Manufacturers and fabricators can use conventional, manual or automated welding processes when working with TruWEAR products due to the steel's advanced chemical composition. See product specifications for more detail.

## SUPPORT

CMC Impact Metals is committed to ensuring that you have the support you need at every step in the process. As a TruWEAR customer, you'll have a dedicated sales team, backed by the expertise of our technical staff, working with you to provide solutions for any project application.

As an industry leader, we are confident your business will benefit from your alliance with CMC Impact Metals - receiving the highest levels of quality with TruWEAR steel, and relying on our industry expertise and personalized customer service that you expect from a trusted partner.

## TruWEAR Hot Rolled Flat Bar Products

TruWEAR abrasion resistant flat bar is available in AR400.

|                        | Hardness<br>(nominal HBW) | Thicknesses<br>(inches) | Widths<br>(inches) | Lengths<br>(feet) | Tensile<br>Strength   | Carbon<br>Equivalency | Hardness<br>Range | Charpy Impacts<br>@ -40°F (-40°C) |
|------------------------|---------------------------|-------------------------|--------------------|-------------------|-----------------------|-----------------------|-------------------|-----------------------------------|
| TruWEAR AR400 Flat Bar | 400                       | 0.250" - 1"             | 2" - 10"           | 20'               | 190 ksi<br>(1310 MPa) | 0.61 - 0.64           | 360 - 440         | 25 ft-lbs (34J)                   |

## TruWEAR Hot Rolled Plate Products

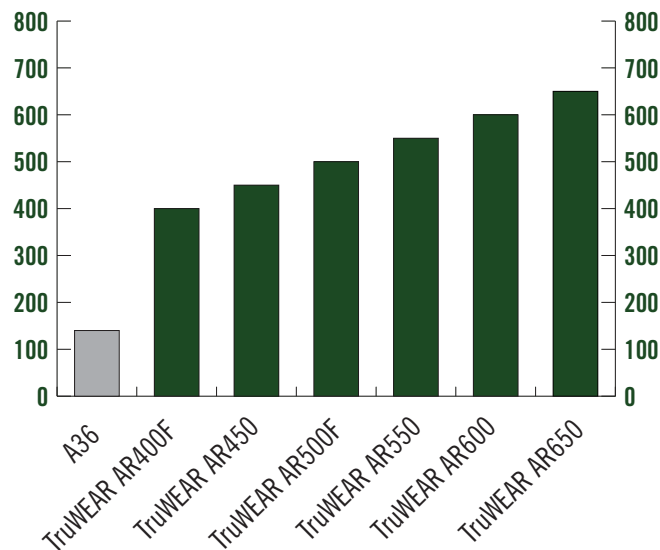
**Flatness** – Our flatness guarantee ensures that TruWEAR plate excels in downstream fabrication processes. Our heat treating, quenching and tempering process reduces and relieves the stresses induced during manufacturing, ensuring the parts remain flat when cut into smaller pieces. CMC is proud to offer our cutting-edge TruFLAT technology for most plate products .300" and thinner, with a flatness of ¼ ASTM A6 standards and significantly exceeding typical standards for flatness.

**Surface Quality** – TruWEAR plate products have a superior surface quality that produces a smooth finish ready for exposed or painted applications.

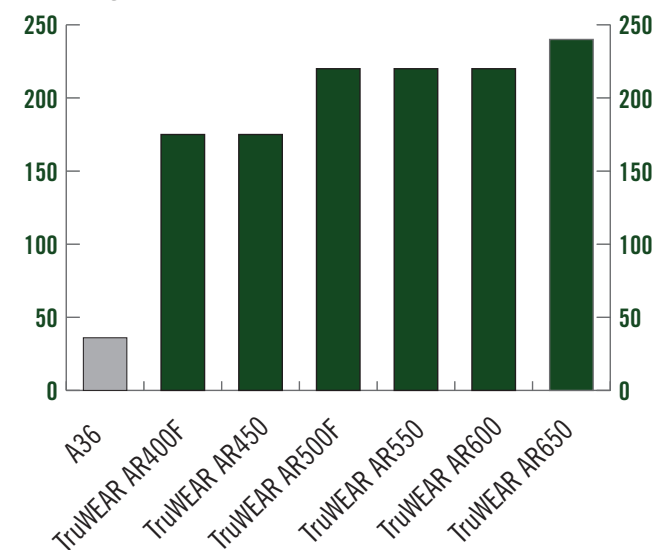
|                      | Hardness<br>(nominal HBW) | Thicknesses<br>(inches) | Widths<br>(inches) | Tensile<br>Strength   | Carbon<br>Equivalency | Hardness<br>Range | Charpy Impacts<br>(typical)<br>@ -40°F (-40°C) |
|----------------------|---------------------------|-------------------------|--------------------|-----------------------|-----------------------|-------------------|--|
| TruWEAR AR400F Plate | 400                       | Up to 0.500"            | Up to 60"          | 190 ksi<br>(1310 MPa) | 0.58                  | 370 - 430         | 25 ft-lbs (34 J)                               |
| TruWEAR AR450F Plate | 450                       | Up to 0.500"            | Up to 60"          | 215 ksi<br>(1482 MPa) | 0.58                  | 425 - 475         | 25 ft-lbs (34 J)                               |
| TruWEAR AR500F Plate | 500                       | Up to 0.500"            | Up to 60"          | 235 ksi<br>(1620 MPa) | 0.61                  | 470 - 535         | 22 ft-lbs (29.8 J)                             |
| TruWEAR AR550 Plate  | 550                       | Up to 0.500"            | Up to 60"          | 265 ksi<br>(1827 MPa) | 0.70                  | 525 - 570         | 18 ft-lbs (24.4 J)                             |
| TruWEAR AR600 Plate  | 600                       | Up to 0.500"            | Up to 60"          | 290 ksi<br>(1999 MPa) | 0.84                  | 570 - 650         | 10 ft-lbs (13.5 J)                             |
| TruWEAR AR650 Plate  | 650                       | Up to 0.500"            | Up to 60"          | 314 ksi<br>(2165 MPa) | 1.00                  | 625 - 700         | 10 ft-lbs (13.5 J)                             |

Call for additional details and to inquire about any other product offerings not included here. All charts show typical values unless otherwise noted.

Hardness (HBW)



Yield Strength (ksi)





## TRUWEAR APPLICATIONS

Our abrasion-resistant steel plate and flat bar are reliable solutions for industries requiring tough performance steel. TruWEAR meets the most stringent requirements and specifications for chemical and mechanical properties.

Our TruWEAR steel products have multiple uses, but primarily lend their toughness and hardness in applications for construction, mining, forestry and manufacturing industries, extending the service life of hard working equipment like:

- » Mining transportation vehicles
- » Rail cars
- » Garbage trucks
- » Dump truck bodies
- » Drag conveyors
- » Bulldozers
- » Equipment buckets
- » Heavy construction
- » Targets



# TruWEAR

**A CENTURY OF INDUSTRY EXPERIENCE** Founded in 1915, Commercial Metals Company and its subsidiaries recycle, manufacture and fabricate steel, metal products and related materials through a network of facilities throughout the United States and around the globe. As a publicly traded company (NYSE: CMC) on the Fortune 500 list, our long-standing professionalism and exceptional level of service have been recognized among the best in our industry. We set the standard for being an environmentally responsible, efficient, high quality, and low cost metal recycler, steel manufacturer and fabricator.



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