

CMC

Performance Steel

TruSTRENGTH



TruSTRENGTH, high strength performance steel

Manufacturers are on a continuous journey to reduce weight while improving the performance of your products, without sacrificing integrity - TruSTRENGTH steel from CMC Impact Metals is the solution. As an industry leader, our high-strength steel provides the strength, weldability and durability to take your products to the next level.

TruSTRENGTH offers:

Strength

TruSTRENGTH's superior strength-to-weight properties allow you to manufacture your products with less steel, meaning your equipment can carry a greater payload while still withstanding the most stringent loading conditions. Lighter equipment also means lower fuel consumption and improved operating performance.

Formability and Weldability

The refined chemical composition, along with the heat-treating, quench and tempering processes used to create TruSTRENGTH, creates a high-strength steel with the ductility that is necessary for ease of formability and fabrication in the manufacturing process. Manufacturers and fabricators can use conventional, manual or automated welding processes when working with TruSTRENGTH products due to the steel's advanced chemical composition.





Melted and manufactured in the USA, our high-strength flat bar, plate and structural products are delivered with uncompromising quality and expertise.

Our high-strength flat bar, plate and structural steel is an integral part of products in industries requiring performance steel. TruSTRENGTH meets the most stringent requirements and specifications for chemical and mechanical properties.

Our TruSTRENGTH steel products have various uses, but primarily lend their strength in applications for the transportation, DOT and construction fields, with flat bar and plate products integral to strengthening:

TruSTRENGTH Applications

Flatbed trailers

Rail cars

Lift trucks

Oilfield rigs

Jet bridges

Snow plows

Forestry trucks and harvesters

Heavy transport trucks

Construction cranes

Mobile cranes

SUPPORT YOU CAN COUNT ON

CMC Impact Metals is committed to ensuring that you have the support you need at every step in the process. As a TruSTRENGTH 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 TruStrength steel, and relying on our industry expertise and personalized customer service that you expect from a trusted partner.



TruSTRENGTH Hot Rolled Flat Bar Products

TruSTRENGTH flat bar is mill-rolled with a smooth edge that ensures uniformity, straightness and safer handling. Products are available in custom length orders, and we offer a flat bar stocking program to ensure you have the right products on demand and on schedule.

| | Yield Strength | Thicknesses (inches) | Widths (inches) | Lengths (feet) | Tensile Strength | Elongation | Reduction of Area | Charpy Impacts @ -40°F (-40°C) |
|--------------------------|--------------------|----------------------|-----------------|----------------|-----------------------------|------------|-------------------|--------------------------------|
| TruSTRENGTH 80 Flat Bar | 80 ksi (552 MPa) | 1/4" - 2" | 3" - 12" | Up to 56' | 95 ksi (655 MPa) | 14% | 60% | 15 ft-lbs (20.3 J) |
| TruSTRENGTH 100 Flat Bar | 100 ksi (689 MPa) | 1/4" - 2" | 3" - 12" | Up to 56' | 110-135 ksi (758-931 MPa) | 18% | 40% | 20 ft-lbs (27.1 J) |
| TruSTRENGTH 130 Flat Bar | 130 ksi (896 MPa) | 1/4" - 2" | 3" - 12" | Up to 56' | 140-165 ksi (965-1138 MPa) | 15% | 35% | 15 ft-lbs (20.3 J) |
| TruSTRENGTH 150 Flat Bar | 150 ksi (1034 MPa) | 1/4" - 2" | 3" - 12" | Up to 56' | 155-175 ksi (1069-1207 MPa) | 13% | 35% | 15 ft-lbs (20.3 J) |

TruSTRENGTH Hot Rolled Plate Products

FLATNESS

CMC Impact Metals offers a flatness guarantee that ensures TruSTRENGTH plate performs 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

TruSTRENGTH plate products have a superior surface quality that produces a smooth finish ready for exposed or painted applications.

| | Yield Strength | Thicknesses (inches) | Widths (inches) | Lengths (inches) | CEV (typical) | Tensile Strength | Elongation | Reduction of Area | Charpy Impacts (transverse typical) @ -40°F (-40°C) |
|-----------------------|-------------------|----------------------|-----------------|------------------|---------------|--------------------|------------|-------------------|---|
| TruSTRENGTH 100 Plate | 100 ksi (689 MPa) | Up to 0.500" | Up to 60" | Up to 288" | 0.58 | 110 ksi (758 MPa) | 18% | 60% | 50 ft-lbs (67.8 J) |
| TruSTRENGTH 110 Plate | 110 ksi (758 MPa) | Up to 0.500" | Up to 60" | Up to 288" | 0.58 | 120 ksi (827 MPa) | 17% | 55% | 40 ft-lbs (54.2 J) |
| TruSTRENGTH 130 Plate | 130 ksi (896 MPa) | Up to 0.500" | Up to 60" | Up to 288" | 0.58 | 140 ksi (965 MPa) | 12% | 45% | 30 ft-lbs (40.7 J) |
| TruSTRENGTH 140 Plate | 140 ksi (965 MPa) | Up to 0.500" | Up to 60" | Up to 288" | 0.58 | 150 ksi (1034 MPa) | 11% | 40% | 25 ft-lbs (33.9 J) |

TruSTRENGTH Structural Angles

Call your CMC Impact Metals representative for additional details and to inquire about any other product offerings not included here.

| | Yield Strength | Thicknesses (inches) | Lengths (feet) | Tensile Strength | Elongation | Reduction of Area | Charpy Impacts @ -40°F (-40°C) |
|--------------------|-------------------|----------------------|----------------|-----------------------------|------------|-------------------|--------------------------------|
| TruSTRENGTH Angles | 100 ksi (689 MPa) | 3/16" - 3/4" | 20' - 55' | 110 - 135 ksi (758-931 MPa) | 18% | 40% | 20 ft-lbs (27.1 J) |

All charts show minimum values unless otherwise noted.



it's what's **inside** that counts

We're CMC. You'll find our products strengthening and reinforcing the infrastructure nearly everywhere on the planet – in sports stadiums and public buildings as well as highways, bridges, railways and other structures. To serve this global market, CMC maintains facilities across the United States, Europe and Asia. These sites include everything from local recycling centers, steel mini-mills and micro-mills to large-scale fabrication centers, heat-treating facilities as well as other operations.

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