



# Product Reference Guide

## PLATE

### Astralloy-V Plate®

- \* The ultimate in toughness and through hardness in a steel plate.
- \* Ideal for extreme impact and abrasion applications with through hardness and toughness.
- \* Air quenched/hardenized ultra high strength alloy steel.
- \* Hot forming capabilities allow tighter radius bends than conventional AR steel plates.
- \* High temperature abrasion to 1100°F.
- \* Hardness: 418 – 512 BHN.
- \* Can work harden in service to 550 BHN.

### Astralloy 8000®

- \* A high performance oil quenched, work hardening steel suitable for impact and abrasion and high temperature abrasion up to 900°F.
- \* Through hardened up to 2" thickness.
- \* Up to 50% longer service life than AR 500.
- \* Produced for ease of forming and welding.
- \* Supplied at 470 BHN average hardness; work hardening in service to approximately 540 BHN.

### EB-450®

- \* Liquid quenched and tempered, through hardened, high impact, excellent high temperature abrasion resistant up to 800°F, alloy steel.
- \* Through hardened up to 3" thickness.
- \* Produced for ease of forming and welding.
- \* Hardness: 418 – 495 BHN.

### Astralloy 4800®

- \* Titanium carbide impregnated.
- \* Suitable for all types of abrasion, sliding, or impact, dry or wet media including high temperature abrasion up to 660°F.
- \* Up to 50% longer service life than AR 400.
- \* Through hardened up to 2" thickness.
- \* Produced for enhanced ease of forming and welding.
- \* Supplied at 370 BHN average hardness; work hardening in service to approximately 440 BHN.

### AstraWear 550

- \* Ideal for tough abrasion applications and extreme sliding applications such as chute liners.
- \* Water quenched and tempered.
- \* Helps you achieve longer service life.
- \* Hardness: 514-600 BHN.

### AstraWear 500F

- \* Moderate impact and severe sliding abrasion.
- \* Water quenched and tempered.
- \* Produced for enhanced formability and ease of welding.
- \* Hardness: 470 – 530 BHN.

### AstraWear 450F

- \* Excellent resistance to impact and sliding abrasion.
- \* Water quenched and tempered.
- \* Produced for enhanced formability and ease of welding.
- \* Hardness: 430 – 480 BHN.

### AstraWear 400F

- \* Excellent resistance to impact and sliding abrasion.
- \* Water quenched and tempered.
- \* Produced for enhanced formability and ease of welding.
- \* Hardness: 360 – 444 BHN.

### A-514

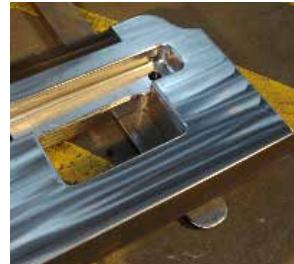
- \* Structural steel plate for wear applications in multiple industries.
- \* Offers the optimum in strength, toughness, corrosion resistance, and impact-abrasion resistance.
- \* Quench and tempered alloy with high yield strength at 100,000 minimum yield.

### Trip-L-Tuff®

- \* Ideal for severe sliding and abrasion applications and moderate impact.
- \* 28% chromium carbide overlay plate, pipe and fabricated wear parts.
- \* Hardness: 555 – 652 BHN.

### Rol-Man®

- \* 11 – 14% manganese steel plate.
- \* Work hardening abrasion resistant steel plate. Excellent for severe impact applications.
- \* Quenched and annealed condition.
- \* Hardness: Supplied at 180 – 220 BHN.
- \* Hardness in Service: 500 – 650 BHN.
- \* Non-magnetic and anti-galling.



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## ROUND BAR

### Astralloy-V Round Bar<sup>®</sup>

- \* The ultimate in a high strength and high wear, impact resistant round bar.
- \* Air hardened process produces a through hardened round bar from outer to inner core.
- \* High toughness at low temperatures approaching -60°F.
- \* High temperature resistance to 1100°F.
- \* Hardness: 320 – 388 BHN.
- \* Furnished in a hot rolled state.

### 4330 V-Mod Round Bar

- \* Nickel alloy round bar.
- \* Normalized, quenched and tempered, stress relieved round bar with excellent toughness.
- \* Minimum 150 ksi yield.
- \* Hardness: 321 – 375 BHN.

### 4145 H-Mod Round Bar

- \* Quenched and tempered for uniformity in strength, shock resistance, ductility and hardness.
- \* One of the most versatile machinery steels.
- \* Furnished in a hot rolled state.
- \* Minimum 125 ksi yield.
- \* Hardness: 287 – 332 BHN.

## ARMOR PLATE

### Armor V2<sup>®</sup>

- \* Commercial grade ballistic steel plate.
- \* Tested to multiple threat levels.
- \* Minimum Hardness: 514 BHN.

### BP6:33<sup>®</sup>

- \* Ballistic resistant grade steel.
- \* Ease of forming, good weldability, excellent ductility and high hardness.
- \* Hot form capabilities without loss of ballistic properties.
- \* NIJ standard 0108.01 (Level III). Listed with the Underwriters Laboratories (Standard 752).

### MIL-DTL-46100

- \* Military grade ballistic steel.
- \* Complies with MIL Standard and DFARS.
- \* Used in vehicle armoring.
- \* Minimum hardness: 477 BHN.

### MIL-DTL-12560

- \* Military grade ballistic steel.
- \* Protection from land mines and explosive structures.
- \* High level of shock absorption minimizes shrapnel.
- \* Minimum hardness: 377 BHN.

## FINISHED PRODUCTS

### Rol-Man<sup>®</sup> Bolster Cup

- \* Produced from 11% -14% manganese steel.
- \* AAR approved under the provisions of S-3004.
- \* Tough, hard, and thrives on severe wear.
- \* Expected to last the life of the rail car.

## SPECIALIZED STEEL SOLUTIONS

For nearly 50 years, Astralloy Steel Products, Inc. has been providing innovative and cost effective wear, impact and abrasion resistant steel solutions. We offer superior customer service with readily available inventory of proprietary and quenched and tempered steel grades. Our success is driven by partnerships with our customers to improve their efficiency and profitability.

### Processing Capabilities

- \* 1,000 ton 20' press brake
- \* 30" plate rolls capable of rolling 2" mild steel 10' wide
- \* High definition plasma and precision oxyacetylene cutting
- \* CAD/CAM and nesting software
- \* Bar sawing capacity of 20" diameter

### Quality Assurance

- \* ISO 9001: 2008 Certified
- \* Original Certified Mill Test Reports