

Amera-Braze[®] 420

ULTRA HIGH IMPACT ALLOY



Color Code:
ORANGE



Amera-Braze 420 by Ameralloy is a heat treated, ultra-high impact and abrasion resistant alloy steel plate and strip. With a combination of excellent toughness and high hardness, Amera-Braze 420 has the capability to resist shock, impact, abrasion, stress, and vibration.

Because of its high strength formulation, a reduction of dead weight is achieved by using Amera-Braze in half the thickness of the original chute, liner, or wear area.

Features And Advantages

- Ultra-high wear resistance
- Heat treated, quenched, and tempered to a high Brinell hardness
- Excellent weldability
- Depth hardened
- Fine grain structure
- High tensile strength
- Corrosion resistance six times greater than mild steel
- Can be formed, rolled, and drilled
- Abrasion, impact, and wear properties retained at weld joints

Typical Mechanical Properties

Tensile strength psi	198,000
Yield point psi	165,000
Elongation in 2"	16%
Reduction of area	52%
Brinell hardness	390–420
Rockwell C hardness	39–46

Welding

Use low hydrogen high tensile electrodes: AWS specification E100XX, E110XX, or E120XX electrodes.

- Carbon .18/.28
- Manganese 1.15/1.50
- Silicon .20/.35
- Molybdenum .08/.28
- Aluminum .03 max.
- Chromium .40/1.00
- Nickel .25 max.
- Boron .0005 min.
- Phosphorus .025 max.
- Sulfur .040 max.

Typical Analysis May Vary By Heat Lot

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Applications

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| <ul style="list-style-type: none"> • Agricultural tynes • Agitator paddles • Arms for lift trucks • Backup plates • Baffle plates • Bucket lips • Bulldozer blades • Car plates • Chain links • Chain slide runners • Chutes:
Coal
Coke
Glass
Grain
Gravel
Limestone
Ore | <ul style="list-style-type: none"> <i>Refuse</i> <i>Rock</i> <i>Sand</i> <i>Slag</i> <i>Slate</i> • Classifier screens • Coke bins • Conveyor buckets • Crusher hammers • Clam shell bucket lips • Concrete mixer liners • Concrete pipe liners • Deck plates • Doors • Dredge pump liners • Drag line buckets | <ul style="list-style-type: none"> • Dipper sticks • Dump truck beds • Eye bars • Fan blades/housings • Flotation plates • Flume liners • Funnels • Furnace liners • Grader blades • Hoppers • Launder plates • Loaders • Log-washer paddles • Muller bottoms • Mixers • Oscillator Liners • Ore car bodies/liners • Ore pocket liners | <ul style="list-style-type: none"> • Pressure plates • Scrap baler liners • Scraper blades • Shakeout liners • Shot-blast liners • Skip cars and liners • Sluice plates • Spiral castings • Transfer car liners • Truck box liners • Vibrators • Wear bars • Wear plates • Wearing strips • Wheelabrator end plates |
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Available Sizes

Amera-Braze 420 Plates

Thickness: 1/4" 3/8" 1/2" 5/8" 3/4" 1" 1-1/4" 1-1/2" 1-3/4" 2" 2-1/2" 3"

Thicknesses over 3" upon request

Widths: 48" 60" 72" 84" 96" or burned to your specifications

Lengths: 96" 120" 144" 240" 288" or burned to your specifications

Amera-Braze 420 Wear Strips

Thickness: 1/4" 3/8" 1/2" 5/8" 3/4" 1" 1-1/4" 1-1/2" 1-3/4" 2"

Thicknesses over 2" burned to your specifications

Widths: Burned to your specifications

Lengths: Maximum of 24'

Fabrication & Machining

Forming, rolling, punching, and perforating to your specifications