

METAL RESOURCE SOLUTIONS, INC.

www.metalresourcesolutions.net

Material Specifications

Page 2) 302HQ Stainless Steel Wire ASTM A-493

Page 3) 430 Stainless Steel Wire ASTM A-493

Page 4) 410 Stainless Steel Wire ASTM A-493

Page 5) CDA 260 Cartridge Brass Wire ASTM B-134

Page 6) CDA 102 Oxygen Free Copper ASTM B-187

Page 7) CDA 110 ETP Copper Wire ASTM B-187

Page 8) CDA 651 Silicon Bronze Wire ASTM B-99

Page 9) CDA 360 Leaded Brass Wire ASTM B-16

Contact us on:

- **Stainless Steel Cold Heading Wire: 302, 302HQ, 304, 305, 316L, 410, 430 and more!**
- **Stainless Steel Electro-Polishing Quality (EPQ) Wire: 201, 204Cu, 304(L), 316(L)**
- **Non-Ferrous Wire: Brass Wire, Copper Wire, Silicon Bronze Wire, and more!**
- **Nickel Wire and Shaped Wire: 200, 400, Nichrome wire, square wire, flat wire and more!**

METAL RESOURCE SOLUTIONS, INC.

302HQ STAINLESS STEEL

AUSTENITIC GRADE

(17-19% CHROMIUM / 8-10 NICKEL / 3-4% COPPER)

SPECIFICATION: ASTM A-493

CHARACTERISTICS

- GOOD HEADABILITY
- NON MAGNETIC
- CAN NOT BE HEAT TREATED
- EASILY WORK HARDENS

TEMPER RANGES:

ANNEALED: 88 ksi,(maximum)

LIGHTLY DRAFTED: 96 ksi,(maximum)

BEST SUITED FOR COLD HEADING: 70-90 ksi

FOR PRICE & AVAILABILITY CALL 800.474.2218

METAL RESOURCE SOLUTIONS, INC.

430 STAINLESS STEEL

FERRITIC GRADE

(16-18% CHROMIUM / .04% CARBON)

SPECIFICATION: ASTM A-493

CHARACTERISTICS

- **GOOD HEADABILITY**
- **MAGNETIC**
- **CAN BE HEAT TREATED**

TEMPER RANGES:

ANNEALED: 75 ksi,(maximum)

LIGHTLY DRAFTED: 86 ksi,(maximum)

BEST SUITED FOR COLD HEADING: 65-85 ksi

FOR PRICE & AVAILABILITY CALL 800.474.2218

METAL RESOURCE SOLUTIONS, INC.

410 STAINLESS STEEL

MARTENSITIC GRADE

(11.5-13.5% CHROMIUM / .15% CARBON)

SPECIFICATION: ASTM A-493

CHARACTERISTICS

- **GOOD HEADABILITY**
- **MAGNETIC**
- **CAN BE HEAT TREATED**

TEMPER RANGES:

ANNEALED: 82 ksi,(maximum)

LIGHTLY DRAFTED: 87 ksi,(maximum)

BEST SUITED FOR COLD HEADING: 70-90 ksi

FOR PRICE & AVAILABILITY CALL 800.474.2218

METAL RESOURCE SOLUTIONS, INC.

CDA 260 Yellow BRASS

(70% COPPER / 30% ZINC)

SPECIFICATION: ASTM B-134

EXCELLENT COLD HEADING CHARACTERISTICS

MACHINABILITY RATING: 30%, (CDA 360 AT 100%)

TEMPER RANGES:

1/8 HARD: 50-65 ksi*

1/4 HARD: 62-77 ksi*

1/2 HARD: 79-94 ksi

3/4 HARD: 92-107 ksi

HARD: 102-117 ksi

SPRING: 120 ksi,(minimum)

***BEST SUITED FOR COLD HEADING**

FOR PRICE & AVAILABILITY CALL 800.474.2218

METAL RESOURCE SOLUTIONS, INC.

CDA 102 OXYGEN FREE COPPER (OFC)

(99.95% COPPER,(minimum))

SPECIFICATION: ASTM B-187

**EXCELLENT COLD HEADING CHARACTERISTICS
MACHINABILITY RATING: 20%, (CDA 360 AT 100%)**

TEMPER RANGES:

SOFT ANNEAL: 28-37 ksi

FULL HARD: 45-55 ksi

BEST SUITED FOR COLD HEADING: 37-45 ksi

FOR PRICE & AVAILABILITY CALL 800.474.2218

METAL RESOURCE SOLUTIONS, INC.

CDA 110 ELECTROLYTIC TOUGH PITCH COPPER (ETP COPPER)

(99.9% COPPER,(minimum))

SPECIFICATION: ASTM B-187

**EXCELLENT COLD HEADING CHARACTERISTICS
MACHINABILITY RATING: 20%, (CDA 360 AT 100%)**

TEMPER RANGES:

SOFT ANNEAL: 28-37 ksi

FULL HARD: 45-55 ksi

BEST SUITED FOR COLD HEADING: 37-45 ksi

FOR PRICE & AVAILABILITY CALL 800.474.2218

METAL RESOURCE SOLUTIONS, INC.

CDA 651 SILICON BRONZE

(98.6% COPPER / 1.4% SILICON)

SPECIFICATION: ASTM B-99

EXCELLENT COLD HEADING CHARACTERISTICS

MACHINABILITY RATING: 30%, (CDA 360 AT 100%)

TEMPER RANGES:

ANNEALED: 38-55 KSI

1/8 HARD: 50-65 ksi

1/4 HARD: 60-75 ksi*

1/2 HARD: 75-95 ksi*

3/4 HARD: 92-107 ksi

HARD: 90-110 ksi

SPRING: 100 ksi,(minimum)

* SUITED FOR COLD HEADING

FOR PRICE & AVAILABILITY CALL 800.474.2218

METAL RESOURCE SOLUTIONS, INC.

CDA 360 LEADED BRASS

(61.5% COPPER / 34.5% ZINC / 4% LEAD)

SPECIFICATION: ASTM B-16

POOR COLD HEADING CHARACTERISTICS
EXCELLENT MACHINABILITY CHARACTERISTICS

TEMPER RANGES:

SOFT ANNEAL: 48 ksi,(minimum)

1/2 HARD: 57 ksi,(minimum)

FULL HARD: 80 ksi,(minimum)

BEST SUITED FOR MACHINING: 60-75 ksi

FOR PRICE & AVAILABILITY CALL 800.474.2218