

This page is mainly introduced the Custom 455 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of Custom 455, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Special Steel Custom 455

| Custom 455 Standard Number: | | |
|-----------------------------|----------------------|--|
| ITEM | Standard Number | Descriptions |
| 1 | SAE AMS 5860F (2006) | Steel, Corrosion-Resistant, Sheet, Strip, and Plate 12Cr - 8.5Ni - 0.30Cb - 1.1Ti - 2.0Cu Multiple Melted, Solution Heat Treated, Precipitation Hardenable |

| Custom 455 Chemical composition (mass fraction) (wt.%) | | | | | | | | | |
|--|----|---------|----|----|----|-----------|----|----|-------|
| Chemical | | Min.(%) | | | | Max.(%) | | | |
| C | | | | | | 0.02 | | | |
| Si | | | | | | | | | |
| Mn | | | | | | | | | |
| P | | | | | | | | | |
| S | | | | | | | | | |
| Ni | | | | | | 8.50 | | | |
| Cr | | | | | | 12.00 | | | |
| Al | | | | | | | | | |
| Cu | | | | | | 2.00 | | | |
| Ti | | | | | | 1.15 | | | |
| Fe | | | | | | remaining | | | |
| Mo | | | | | | | | | |
| Co | | | | | | | | | |
| Nb | | | | | | 0.38 | | | |
| B | | | | | | 0.003 | | | |
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta |
| | | | | | | | | | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other |
| | | | | | | | | | |

Steel, Corrosion-Resistant, Sheet, Strip, and Plate 12Cr - 8.5Ni - 0.30Cb - 1.1Ti - 2.0Cu Multiple

Melted, Solution Heat Treated, Precipitation Hardenable

Custom 455 Physical Properties

| Custom 455 Physical Properties | | |
|--------------------------------|---------|--------------------------|
| Tensile strength | 115-234 | σ_b /MPa |
| Yield Strength | 23 | $\sigma_{0.2} \geq$ /MPa |
| Elongation | 65 | $\delta_5 \geq$ (%) |
| ψ | - | $\psi \geq$ (%) |
| Akv | - | Akv \geq /J |
| HBS | 123-321 | - |
| HRC | 30 | - |

Custom 455 Mechanical Properties

| Custom 455 Mechanical Properties | | |
|----------------------------------|---------|--------------------------|
| Tensile strength | 231-231 | σ_b /MPa |
| Yield Strength | 154 | $\sigma_{0.2} \geq$ /MPa |
| Elongation | 56 | $\delta_5 \geq$ (%) |
| ψ | - | $\psi \geq$ (%) |
| Akv | - | Akv \geq /J |
| HBS | 235-268 | - |
| HRC | 30 | - |

Custom 455 Heat Treatment Regime

| Annealing | Quenching | Tempering | Normalizing | Q & T |
|-----------|-----------|-----------|-------------|-------|
| √ | √ | √ | √ | √ |

| Custom 455 Range of products | | | | |
|------------------------------|--|----------------------------|---|---|
| Product type | Products | Dimension | Processes | Deliver Status |
| Plates / Sheets | Plates / Sheets | 0.08-200mm(T)*W*L | Forging, hot rolling and cold rolling | Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting |
| Steel Bar | Round Bar, Flat Bar, Square Bar | Φ8-1200mm*L | Forging, hot rolling and cold rolling, Cast | Black, Rough Turning, Shot Blasting, |
| Coil / Strip | Steel Coil /Steel Strip | 0.03-16.0x1200mm | Cold-Rolled & Hot-Rolled | Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting |
| Pipes / Tubes | Seamless Pipes/Tubes, Welded Pipes/Tubes | OD:6-219mm x WT:0.5-20.0mm | Hot extrusion, Cold Drawn, Welded | Annealed, Solution and Aging, Q+T, ACID-WASHED |

We can produce Specialsteel the specifications follows: