**This page is mainly introduced the SA-249 N08904 Datasheet, including chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of SA-249 N08904,such as it is commonly used in bars, sheet,plates, steel coils, steel pipes,forged and other materials application.**

# Datasheet for Steel Grades Specialsteel SA-249 N08904

| SA-249 N08904 Standard Number: | | |
|---|---|---|
| ITEM | Standard Number | Descriptions |
| 1 | SA-249/SA-249M | Specification for Welded Austenitic Steel Boiler, Superheater, Heat-Exchanger, and Condenser Tubes |

| SA-249 N08904 Chemical composition(mass fraction)(wt.%) | | |
|---|---|---|
| Chemical | Min.(%) | Max.(%) |
| C | | 0.02 |
| Mn | | 2.00 |
| Si | | 1.00 |
| P | | 0.045 |
| S | | 0.035 |
| Cr | 19.00 | 23.00 |
| Ni | 23.00 | 28.00 |
| Mo | 4.00 | 5.00 |
| Cu | 1.00 | 2.00 |

| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other |
| | | | | | | | | | |

Specification for Welded Austenitic Steel Boiler, Superheater, Heat-Exchanger, and Condenser

Tubes

| SA-249 N08904 Physical Properties | | |
|---|---|---|
| Tensile strength | 115-234 | σb/MPa |
| Yield Strength | 23 | σ 0.2 ≥/MPa |
| Elongation | 65 | δ5≥ (%) |
| ψ | - | ψ≥ (%) |
| Akv | - | Akv≥/J |
| HBS | 123-321 | - |
| HRC | 30 | - |

| SA-249 N08904 Mechanical Properties | | |
|---|---|---|
| Tensile strength | 231-231 | σb/MPa |
| Yield Strength | 154 | σ 0.2 ≥/MPa |
| Elongation | 56 | δ5≥(%) |

| | | |
|---|---|---|
| ψ | - | ψ≥(%) |
| Akv | - | Akv≥/J |
| HBS | 235-268 | - |
| HRC | 30 | - |

## SA-249 N08904 Heat Treatment Regime

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

## SA-249 N08904 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: