

This page is mainly introduced the 17-22-A Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 17-22-A, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel 17-22-A

| 17-22-A Standard Number: | | |
|--------------------------|----------------------|--|
| ITEM | Standard Number | Descriptions |
| 1 | SAE AMS 6304L (2012) | Low-Alloy Steel, Heat-Resistant, Bars, Forgings, and Tubing 0.95Cr - 0.55Mo - 0.30V (0.40 - 0.50C) |
| 2 | SAE AMS 6305F (2012) | Steel, Heat-Resistant, Bars, Forgings, and Tubing 0.95Cr - 0.55Mo - 0.30V (0.40 - 0.50C) Vacuum Arc Remelted |
| 3 | SAE J 467 (1968) | Special Purpose Alloys ("Superalloys") |

| 17-22-A Chemical composition(mass fraction)(wt.%) | | | | | | | | | |
|---|----|-----------|----|----|----|---------|----|----|-------|
| Chemical | | Min.(%) | | | | Max.(%) | | | |
| C | | | | | | 0.45 | | | |
| Si | | | | | | 0.65 | | | |
| Mn | | | | | | 0.55 | | | |
| P | | | | | | | | | |
| S | | | | | | | | | |
| Ni | | | | | | | | | |
| Cr | | | | | | 12.50 | | | |
| Al | | | | | | | | | |
| Cu | | | | | | | | | |
| Ti | | | | | | | | | |
| Fe | | remaining | | | | | | | |
| V | | | | | | 0.30 | | | |
| Mo | | | | | | 0.55 | | | |
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other |
| | | | | | | | | | |

Low-Alloy Steel, Heat-Resistant, Bars, Forgings, and Tubing 0.95Cr - 0.55Mo - 0.30V (0.40 - 0.50C)

17-22-A 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 | - |

17-22-A 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 | - |

17-22-A Heat Treatment Regime

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

17-22-A 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: