

This page is mainly introduced the 17-22-A V 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 V, 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 V

### 17-22-A V Standard Number:

| ITEM | Standard Number      | Descriptions   |
|------|----------------------|--|
| 1    | SAE AMS 6303H (2012) | Steel Bars and Forgings, Low Alloy, Heat-Resistant 0.65Si - 1.25Cr - 0.50Mo - 0.85V (0.25 - 0.30C) |
| 2    | SAE AMS 6436C (2001) | Sheet, Strip and Plate, Low-alloy, Heat Resistant, 0,65Si - 1,25Cr - 0,50Mo - 0,85V - (0,25-0,30C) |
| 3    | SAE J 467 (1968)     | Special Purpose Alloys ("Superalloys")   |

### 17-22-A V 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 |

## Special Purpose Alloys ("Superalloys")

| 17-22-A V Physical Properties |         |                          |
|-------------------------------|---------|--------------------------|
| Tensile strength              | 115-234 | $\sigma_b$ /MPa          |
| Yield Strength                | 23      | $\sigma_{0.2} \geq$ /MPa |
| Elongation                    | 65      | $\delta_5 \geq$ (%)      |
| $\psi$                        | -       | $\psi \geq$ (%)          |
| Akv                           | -       | Akv $\geq$ /J            |
| HBS                           | 123-321 | -                        |
| HRC                           | 30      | -                        |

| 17-22-A V Mechanical Properties |         |                          |
|---------------------------------|---------|--------------------------|
| Tensile strength                | 231-231 | $\sigma_b$ /MPa          |
| Yield Strength                  | 154     | $\sigma_{0.2} \geq$ /MPa |
| Elongation                      | 56      | $\delta_5 \geq$ (%)      |
| $\psi$                          | -       | $\psi \geq$ (%)          |
| Akv                             | -       | Akv $\geq$ /J            |
| HBS                             | 235-268 | -                        |
| HRC                             | 30      | -                        |

| 17-22-A V Heat Treatment Regime |           |           |             |       |
|---------------------------------|-----------|-----------|-------------|-------|
| Annealing                       | Quenching | Tempering | Normalizing | Q & T |
| √                               | √         | √         | √           | √     |

| 17-22-A V 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 |

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|               |   |                               |                                      |   |
|---------------|---|-------------------------------|--------------------------------------|---|
| Pipes / Tubes | Seamless Pipes/Tubes,<br>Welded Pipes/Tubes | OD:6-219mm x<br>WT:0.5-20.0mm | Hot extrusion, Cold<br>Drawn, Welded | Annealed, Solution and<br>Aging, Q+T, ACID-<br>WASHED |
|---------------|---|-------------------------------|--------------------------------------|---|

**We can produce Specialsteel the specifications follows:**