**This page is mainly introduced the 1.7734 Datasheet, including chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1.7734,such as it is commonly used in bars, sheet,plates, steel coils, steel pipes,forged and other materials application.**

# Datasheet for Steel Grades Specialsteel 1.7734

## 1.7734 Standard Number:

| ITEM | Standard Number | Descriptions |
|---|---|---|
| 1 | WL 1.7734-1 (1982) | Aerospace; weldable hardened and tempered chromium-molybdenum-vanadium steel with approx. 0,15 C - 1,4 Cr - 0,9 Mo - 0,25 V; sheet, plate and strip |
| 2 | WL 1.7734-2 (1982) | Weldable heat-treatable chromium-molybdenum-vanadium steel with about 0.15C-1.4Cr-0.9Mo-0.25V; rods and forgings |
| 3 | WL 1.7734-3 (1982) | Weldable heat-treatable chromium-molybdenum-vanadium steel with about 0.15C-1.4Cr-0.9Mo-0.25V; pipes |
| 4 | WL 1.7734-4 (1982) | Weldable heat-treatable chromium-molybdenum-vanadium steel with about 0.15C-1.4Cr-0.9Mo-0.25V; filler metal |

## 1.7734 Chemical composition(mass fraction)(wt.%)

| Chemical | Min.(%) | Max.(%) |
|---|---|---|
| C | 0.12 | 0.18 |
| Si | | 0.20 |
| Mn | 0.80 | 1.10 |
| S | | 0.015 |
| P | | 0.020 |
| Cr | 1.25 | 1.50 |
| Mo | 0.80 | 1.00 |
| V | 0.20 | 0.30 |

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

**Alloy**

| | Condition | Tensile Stre | Yield Stren | Elongation | Hardness |
|---|---|---|---|---|---|

| | | ngth MPa | gth MPa | % | HB |
|---|---|---|---|---|---|
| **Alloy 15CDV6** | 1.7734.2 (ann) | - | - | - | 197 |
| **Alloy 15CDV6** | 1.7734.4 | 700 | 550 | 13 | 207 |
| **Alloy 15CDV6** | 1.7734.5 | 980-1180 | 790 | 11 | 293-352 |
| **Alloy 15CDV6** | 1.7734.6 | 1080-1250 | 930 | 10 | 321-363 |

Alloy 15CDV6 is a low carbon steel which combines a high yield strength (superior to SAE 4130) with good toughness and weldability. 15CDV6 can be readily welded with very little loss of properties during welding and without the need for further heat treatment. This alloy finds many applications in the aerospace and motorsports industries in such components as roll cages, pressure vessels, suspensions, rocket motor casings, wish bones and subframes.

## Specifications

WS 1.7734
15CrMoV6
FE-PL63 S (AECMA)
FE-PL1505 (AECMA)
AIR 9160C
LN 668 round bar
MN 1013 round bar
ASNA 3108 sheet and plate
DIN 65389 sheet and plate
DIN 65390 sheet and plate
TE014 seamless tube
LN 9369 seamless tube
DIN 65035 forging billet

# DIN 7527 forging billet

## 1.7734 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 | - |

## 1.7734 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 | - |

## 1.7734 Heat Treatment Regime

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

## 1.7734 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: