

This page is mainly introduced the ISO X11CrNiWTi17 13 3 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of ISO X11CrNiWTi17 13 3, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Special Alloy ISO X11CrNiWTi17 13 3

### ISO X11CrNiWTi17 13 3 Standard Number:

| ITEM | Standard Number | Descriptions |
|------|-----------------|--------------|
|------|-----------------|--------------|

### ISO X11CrNiWTi17 13 3 Chemical composition (mass fraction) (wt.%)

| Chemical  |          |          | Min.(%)   |           |           |           | Max.(%) |    |       |
|-----------|----------|----------|-----------|-----------|-----------|-----------|---------|----|-------|
| C         | Si       | Mn       | P         | S         | Cr        | Ni        | Mo      | V  | Ta    |
| 0.07-0.15 | Max 1.00 | Max 1.00 | Max 0.045 | Max 0.030 | 15.5-17.5 | 12.0-14.5 |         |    |       |
| W         | N        | Cu       | Co        | Pb        | B         | Nb        | Al      | Ti | Other |
|           |          |          |           |           |           |           |         |    |       |

High temperature austenite steel ISO standard internal combustion engine

### ISO X11CrNiWTi17 13 3 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      | -                        |

### ISO X11CrNiWTi17 13 3 Mechanical Properties

|                  |         |                 |
|------------------|---------|-----------------|
| Tensile strength | 231-231 | $\sigma_b$ /MPa |
|------------------|---------|-----------------|

|                |         |                                  |
|----------------|---------|----------------------------------|
| Yield Strength | 154     | $\sigma_{0.2} \geq / \text{MPa}$ |
| Elongation     | 56      | $\delta 5 \geq (\%)$             |
| $\psi$         | -       | $\psi \geq (\%)$                 |
| Akv            | -       | $Akv \geq / \text{J}$            |
| HBS            | 235-268 | -                                |
| HRC            | 30      | -                                |

### ISO X11CrNiWTi17 13 3 Heat Treatment Regime

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

### ISO X11CrNiWTi17 13 3 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          | $\Phi 8$ -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 Special Alloy the specifications follows:**