

This page is mainly introduced the X6Cr17 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of X6Cr17, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel X6Cr17

X6Cr17 Standard Number:

| ITEM | Standard Number | Descriptions |
|------|---------------------|--|
| 1 | ISO 15510 (2010) | Stainless steels -- Chemical composition |
| 2 | ISO 16143-1 (2004) | Stainless steels for general purposes -- Part 1: Flat products |
| 3 | ISO 16143-2 (2004) | Stainless steels for general purposes -- Part 2: Semi-finished products, bars, rods and sections |
| 4 | ISO 16143-3 (2005) | Stainless steels for general purposes -- Part 3: Wire |
| 5 | ISO 4955 (2005) | Heat-resistant steels |
| 6 | ISO 6931-2 | Stainless steels for springs - Part 2: Narrow strip |
| 7 | ISO/TS 15510 (2003) | Stainless steels - Chemical composition |

X6Cr17 Chemical composition(mass fraction)(wt.%)

| Chemical | Min.(%) | | | | | Max.(%) | | | | |
|----------|---------|----|----|----|----|---------|----|----|-------|--|
| C | | | | | | 0.03 | | | | |
| Si | | | | | | 1.00 | | | | |
| Mn | | | | | | 1.00 | | | | |
| P | | | | | | 0.040 | | | | |
| S | | | | | | 0.030 | | | | |
| Cr | 16.00 | | | | | 18.00 | | | | |
| Ni | | | | | | | | | | |
| Mo | | | | | | | | | | |
| N | | | | | | | | | | |
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta | |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other | |
| | | | | | | | | | | |

Stainless steels - Chemical composition

X6Cr17 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 | - |

X6Cr17 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 | - |

X6Cr17 Heat Treatment Regime

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

X6Cr17 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, | $\Phi 8$ -1200mm*L | Forging, hot rolling and | Black, Rough Turning, |

| | | | | |
|---------------|--|----------------------------|-----------------------------------|---|
| | Square Bar | | cold rolling, Cast | 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: