

This page is mainly introduced the X10CrAlSi7 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of X10CrAlSi7, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel X10CrAlSi7

X10CrAlSi7 Standard Number:

| ITEM | Standard Number | Descriptions |
|------|-----------------|---|
| 1 | BS EN 10088-1 | Stainless steels - Part 1: List of stainless steels |
| 2 | BS EN 10095 | Heat resisting steels and nickel alloys |

X10CrAlSi7 Chemical composition (mass fraction) (wt.%)

| Chemical | | Min.(%) | | Max.(%) | | | | | |
|----------|----|---------|----|---------|----|----|----|----|-------|
| C | | | | 0.12 | | | | | |
| Si | | 0.50 | | 1.00 | | | | | |
| Mn | | | | 1.00 | | | | | |
| P | | | | 0.045 | | | | | |
| S | | | | 0.015 | | | | | |
| Cr | | 6.00 | | 8.00 | | | | | |
| Ni | | | | | | | | | |
| Al | | 0.50 | | 1.00 | | | | | |
| C | Si | Mn | P | S | Cr | Ni | Mo | V | Ta |
| W | N | Cu | Co | Pb | B | Nb | Al | Ti | Other |
| | | | | | | | | | |

Heat resisting steels and nickel alloys

X10CrAlSi7 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 | - |

| X10CrAlSi7 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 | - |

| X10CrAlSi7 Heat Treatment Regime | | | | |
|----------------------------------|-----------|-----------|-------------|-------|
| Annealing | Quenching | Tempering | Normalizing | Q & T |
| √ | √ | √ | √ | √ |

| X10CrAlSi7 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 Specialsteel the specifications follows: