

MATERIAL NUMBER 1.4312 · CLASS 1.4

# Ch18N10SL

## Material no. 1.4312

also listed as GX10CrNi18-8

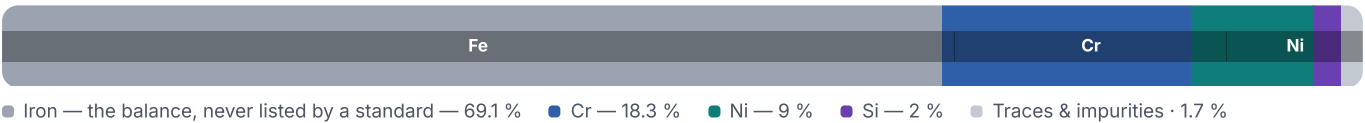
Chemical composition, mechanical and physical property values, and 43 standard designations from 15 regions.

|                                          |                                               |                                     |
|------------------------------------------|-----------------------------------------------|-------------------------------------|
| DENSITY<br><b>7.85</b> g/cm <sup>3</sup> | OTHER DESIGNATIONS<br><b>43</b> in 15 regions | PROPERTY VALUES<br><b>8</b> on file |
|------------------------------------------|-----------------------------------------------|-------------------------------------|

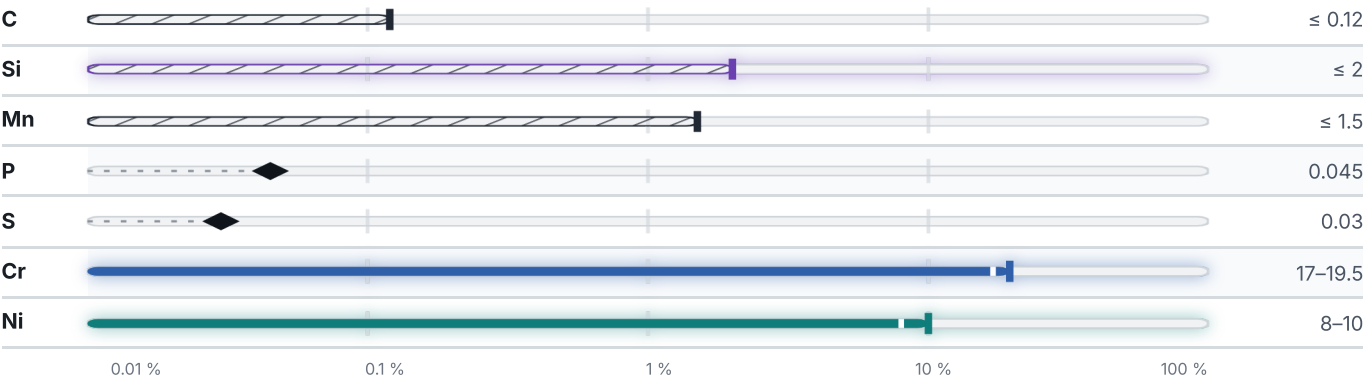
Chemical composition

Mass fraction in %

What this alloy is



Logarithmic scale, 0.01 % to 100 % — every value here compares directly, decade by decade.



The scale is logarithmic, not the element's raw share of the alloy — the only honest way to fit 0.01 % and 100 % in one picture, and it means every value here can be compared with every other.

### Predicted transformation temperatures

Not enough recorded composition to predict a transformation temperature for this grade — missing: Mo.

Mechanical properties

5 values across 1 conditions

| QUENCHING 1050 - 1100°C | RM<br>N/mm <sup>2</sup> | RE<br>N/mm <sup>2</sup> | A5<br>% | Z<br>% | KCU<br>kJ/m <sup>2</sup> |
|-------------------------|-------------------------|-------------------------|---------|--------|--------------------------|
| to 100                  | 441                     | 177                     | 25      | 35     | 981                      |

Physical properties

1 values

| PROPERTY | VALUE | UNIT              |
|----------|-------|-------------------|
| Density  | 7.85  | g/cm <sup>3</sup> |

Heat treatment

2 regimes

| STEP      | TEMPERATURE  | MEDIUM |
|-----------|--------------|--------|
| Quenching | 950–1050 °C  | Water  |
| Quenching | 1050–1100 °C | —      |

Designations across standards

43 designations · 2 documented as identical

|                                           |          |                 |       |
|-------------------------------------------|----------|-----------------|-------|
| Russia / CIS                              | 12       | Japan           | 3     |
| 10Ch18N9L                                 | gost     | SCS12           | jis   |
| 10Kh18N9BL                                | gost     | SCS13           | jis   |
| 10KH18N9L                                 | gost     | SCS13A          | jis   |
| 10X18H9Л                                  | gost     |                 |       |
| 12KH18N9TL                                | gost     | China           | 3     |
| 12X18H9TЛ                                 | gost     | ZG12Cr18Ni9Ti   | gb    |
| PK10Kh18N9T                               | gost     | ZG1Cr18Ni9      | gb    |
| ПК10Х18Н9Т-6.4                            | gost     | ZG1Cr18Ni9Ti    | gb    |
| ПК10Х18Н9Т-6.8                            | gost     |                 |       |
| ПК10Х18Н9Т-7.2                            | gost     | France          | 2     |
| ПК10Х18Н9Т-7.6                            | gost     | Z10CN18-9M      | afnor |
| X18H9БЛ                                   | gost     | Z6CN18-10M      | afnor |
|                                           |          |                 |       |
| United States                             | 5        | Czechia         | 2     |
| J92701 <span>This grade's own name</span> | uns      | 422 931         | csn   |
| CF-16F                                    | aisi-sae | 422933          | csn   |
| J92630                                    | aisi-sae |                 |       |
| J92701                                    | aisi-sae | Poland          | 2     |
| J92710                                    | aisi-sae | LH18N9          | pn    |
|                                           |          | LH18N9T         | pn    |
|                                           |          |                 |       |
| United Kingdom                            | 3        | Hungary         | 2     |
| 302C25                                    | bs       |                 |       |
| ANC 3 grade A                             | bs       | AoX12CrNi18-9   | msz   |
| ANC3A                                     | bs       | AoX12CrNiTi18-9 | msz   |

|              |      |              |                              |
|--------------|------|--------------|------------------------------|
| Romania      | 2    | Europe       | 1                            |
| T15NiCr180   | stas | GX10CrNi18-8 | This grade's own name din-en |
| T15TiNiCr180 | stas |              |                              |
| Bulgaria     | 2    | Italy        | 1                            |
| Ch18N10SL    | bds  | GX6CrNi20-10 | uni                          |
| Ch18N10TSL   | bds  | Sweden       | 1                            |
| South Korea  | 2    | 2333         | ss                           |
| SSC12        | ks   |              |                              |
| SSC13A       | ks   |              |                              |

**Note on use.** The data is compiled to the best of our knowledge from publicly available standards and manufacturer documentation. It replaces neither material testing nor an inspection document to EN 10204. Please request a mill certificate to EN 10204 2.1, 3.1 or 3.2 together with your enquiry. The standard in its current valid edition always prevails.

### Enquiry about Ch18N10SL

Quotation, availability, mill certificate or a technical question — directly on the material page.

[Start an enquiry](#)

|                        |                   |              |              |
|------------------------|-------------------|--------------|--------------|
| DATASHEET ONLINE       | GRADE SEARCH      | MATERIAL NO. | ISSUED       |
| View the material page | Search all grades | 1.4312       | Aug 20, 2026 |