

MATERIAL NUMBER 1.4305 · CLASS 1.4

# 5635

## Material no. 1.4305

also listed as X 10 CrNiS 18 9

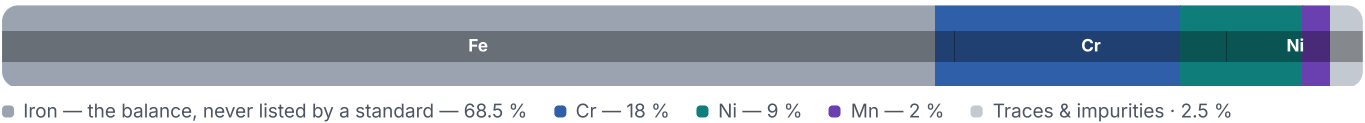
Chemical composition, mechanical and physical property values, and 77 standard designations from 16 regions.

|                             |                                               |                                      |
|-----------------------------|-----------------------------------------------|--------------------------------------|
| DENSITY<br><b>7.9</b> g/cm³ | OTHER DESIGNATIONS<br><b>77</b> in 16 regions | PROPERTY VALUES<br><b>10</b> on file |
|-----------------------------|-----------------------------------------------|--------------------------------------|

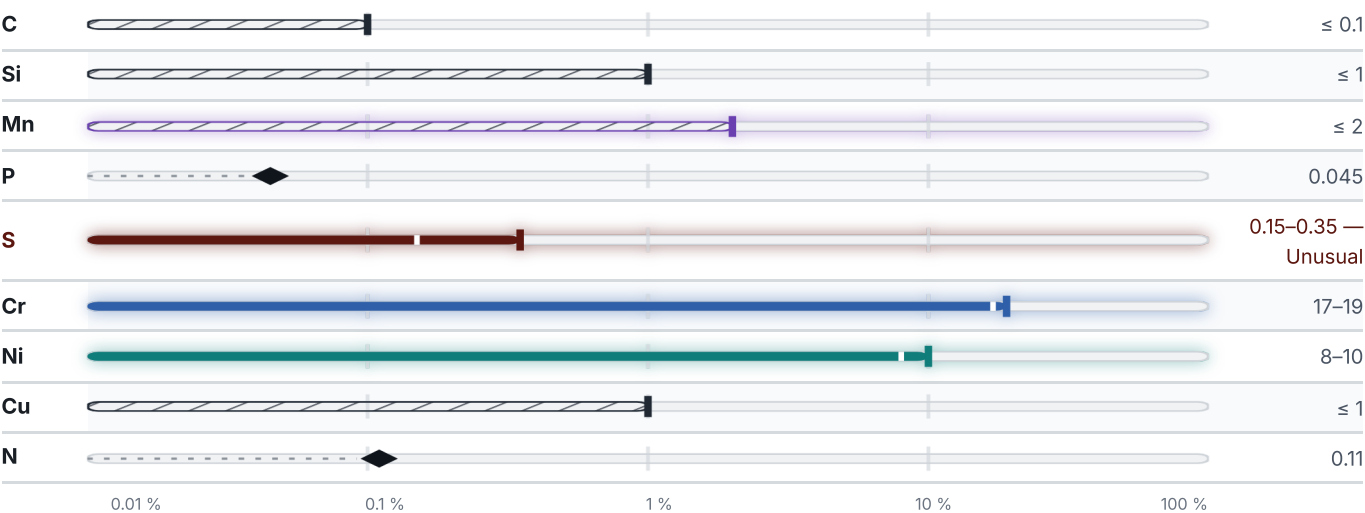
### Chemical composition

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

11 values across 2 conditions

| CONDITION · DIMENSION  | RM<br>N/mm <sup>2</sup> | RE<br>N/mm <sup>2</sup> | A<br>% | Z<br>% | HB  | HRB | HV  |
|------------------------|-------------------------|-------------------------|--------|--------|-----|-----|-----|
| Plate/Sheet Hot-rolled | 520                     | 205                     | 35     | –      | –   | –   | –   |
| Bars/Rods              | 520                     | 205                     | 40     | 50     | –   | –   | –   |
| Hot-rolled             | –                       | –                       | –      | –      | 187 | 90  | 200 |
| SOFT ANNEALED          |                         |                         |        |        |     |     | HB  |
| Soft annealed          |                         |                         |        |        |     |     | 230 |

Physical properties

1 values

| PROPERTY | VALUE | UNIT              |
|----------|-------|-------------------|
| Density  | 7.9   | g/cm <sup>3</sup> |

## Designations across standards

77 designations · 7 documented as identical

| United States  |                       | 32       | Spain                     |                       | 7      |
|----------------|-----------------------|----------|---------------------------|-----------------------|--------|
| S30300         | This grade's own name | uns      | 18-09                     |                       | une    |
| S30400         |                       | uns      | F-3507                    |                       | une    |
| S30403         |                       | uns      | F.310.C                   |                       | une    |
| S30453         |                       | uns      | F.3504                    |                       | une    |
| S30500         |                       | uns      | F.3508                    |                       | une    |
| S41603         |                       | uns      | F.3508-X10CrNiS           |                       | une    |
| 303            | This grade's own name | aisi-sae | X10CrNi18-9               |                       | une    |
| 30303          |                       | aisi-sae |                           |                       |        |
| 304            |                       | aisi-sae |                           |                       |        |
| 304L           |                       | aisi-sae |                           |                       |        |
| 304LN          |                       | aisi-sae |                           |                       |        |
| 305            |                       | aisi-sae |                           |                       |        |
| 416L           |                       | aisi-sae |                           |                       |        |
| S30300         |                       | aisi-sae |                           |                       |        |
| A194           |                       | astm     |                           |                       |        |
| A314           |                       | astm     |                           |                       |        |
| A320           |                       | astm     |                           |                       |        |
| A320 Grade B8F |                       | astm     |                           |                       |        |
| A473           |                       | astm     |                           |                       |        |
| A484           |                       | astm     |                           |                       |        |
| A581           |                       | astm     |                           |                       |        |
| A582           |                       | astm     |                           |                       |        |
| A895           |                       | astm     |                           |                       |        |
| F593           |                       | astm     |                           |                       |        |
| F594           |                       | astm     |                           |                       |        |
| F738           |                       | astm     |                           |                       |        |
| F836           |                       | astm     |                           |                       |        |
| F837           |                       | astm     |                           |                       |        |
| F880           |                       | astm     |                           |                       |        |
| F899           |                       | astm     |                           |                       |        |
| TP304          |                       | astm     |                           |                       |        |
| TP304L         |                       | astm     |                           |                       |        |
| United Kingdom |                       | 7        | Europe                    |                       | 5      |
| 301 S 21       |                       | bs       | 1.4305                    |                       | din-en |
| 303S21         |                       | bs       | X 10 CrNiS 18 9           | This grade's own name | din-en |
| 303S21 EN 58M  |                       | bs       | X10CrNiS189               | This grade's own name | din-en |
| 303S22         | This grade's own name | bs       | X12CrNiS188               |                       | din-en |
| 303S31         |                       | bs       | X8CrNiS18-9               | This grade's own name | din-en |
| 58M            |                       | bs       |                           |                       |        |
| EN58M          |                       | bs       |                           |                       |        |
|                |                       |          | United States / Aerospace |                       | 4      |
|                |                       |          | 5635                      |                       | ams    |
|                |                       |          | 5638                      |                       | ams    |
|                |                       |          | 5640                      |                       | ams    |
|                |                       |          | 5641                      |                       | ams    |
|                |                       |          | Russia / CIS              |                       | 4      |
|                |                       |          | 12Ch18N10E                |                       | gost   |
|                |                       |          | 12Ch18N9                  |                       | gost   |
|                |                       |          | 12Kh18N9                  |                       | gost   |
|                |                       |          | 2Ch18N10E                 |                       | gost   |
|                |                       |          | Japan                     |                       | 3      |
|                |                       |          | SUS 301                   |                       | jis    |
|                |                       |          | SUS 302                   |                       | jis    |
|                |                       |          | SUS303                    |                       | jis    |
|                |                       |          | Poland                    |                       | 3      |
|                |                       |          | 00H18N10                  |                       | pn     |
|                |                       |          | 0H18N9                    |                       | pn     |
|                |                       |          | 1H18N9                    |                       | pn     |
|                |                       |          | France                    |                       | 2      |
|                |                       |          | Z10CNF18.09               |                       | afnor  |
|                |                       |          | Z8CNF18-09                |                       | afnor  |
|                |                       |          | China                     |                       | 2      |
|                |                       |          | 1Cr18Ni9MoZr              |                       | gb     |
|                |                       |          | Y1Cr18Ni9                 |                       | gb     |
|                |                       |          | Sweden                    |                       | 2      |
|                |                       |          | 2346                      |                       | ss     |
|                |                       |          | SIS 2346                  | This grade's own name | ss     |

|               |     |                   |      |
|---------------|-----|-------------------|------|
| Czechia       | 2   | Slovakia          | 1    |
| 17 243 PH     | csn | 17 243            | stn  |
| 17243         | csn |                   |      |
| Italy         | 1   | Serbia            | 1    |
| X10CrNiS18-09 | uni | Č.4590            | srps |
|               |     | former Yugoslavia | 1    |
|               |     | Č.4590            | jus  |

**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 5635

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

[Start an enquiry](#)

|                        |                   |              |             |
|------------------------|-------------------|--------------|-------------|
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