

MATERIAL NUMBER 1.7016 · CLASS 1.7

# 1.7016

Chemical composition, mechanical and physical property values, and 36 standard designations from 11 regions.

|                                          |                                               |                                      |
|------------------------------------------|-----------------------------------------------|--------------------------------------|
| DENSITY<br><b>7.85</b> g/cm <sup>3</sup> | OTHER DESIGNATIONS<br><b>36</b> in 11 regions | PROPERTY VALUES<br><b>10</b> on file |
|------------------------------------------|-----------------------------------------------|--------------------------------------|

## Chemical composition

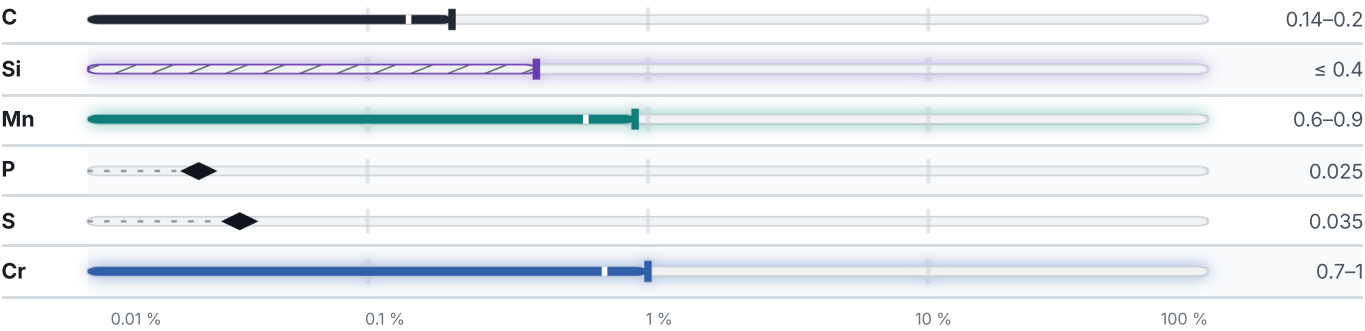
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 97.8 % ● Cr — 0.9 % ● Mn — 0.8 % ● Si — 0.4 % ● Traces & impurities · 0.2 %

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: Ni, Mo.

## Mechanical properties

13 values across 5 conditions

| SOFT ANNEALED | HB  | HRB | HV  |
|---------------|-----|-----|-----|
| Soft annealed | 174 | 84  | 170 |

| CONDITION · DIMENSION                                       | RM<br>N/mm <sup>2</sup> | RE<br>N/mm <sup>2</sup> | A5<br>% |
|-------------------------------------------------------------|-------------------------|-------------------------|---------|
| 5 - 9                                                       | 560                     | 400                     | 18      |
| TREATED TO FERRITE-PEARLITE<br>STRUCTURE AND HARDNESS RANGE |                         |                         | HB      |
| Treated to ferrite-pearlite structure<br>and hardness range |                         |                         | 140-187 |
| CONDITION · DIMENSION                                       | RM<br>N/mm <sup>2</sup> | RE<br>N/mm <sup>2</sup> | A5<br>% |
| to 50                                                       | 510                     | 390                     | 19      |
| CONDITION · DIMENSION                                       | RM<br>N/mm <sup>2</sup> | RE<br>N/mm <sup>2</sup> | A5<br>% |
| to 50                                                       | 530                     | 390                     | 18      |

Physical properties

4 values

| PROPERTY                 | VALUE | UNIT              |
|--------------------------|-------|-------------------|
| Density                  | 7.85  | g/cm <sup>3</sup> |
| Transformation point Ac1 | 720   | °C                |
| Transformation point Ac3 | 850   | °C                |

Technological properties

| PROPERTY    | VALUE                | UNIT |
|-------------|----------------------|------|
| Weldability | without limitations. |      |

Designations across standards

36 designations · 12 documented as identical

|              |      |    |                |                       |          |
|--------------|------|----|----------------|-----------------------|----------|
| Russia / CIS |      | 14 | United States  |                       | 11       |
| 15Ch         | gost |    | G46150         | This grade's own name | uns      |
| 15G2SF       | gost |    | G50150         | This grade's own name | uns      |
| 15G2SFD      | gost |    | G51150         | This grade's own name | uns      |
| 15G2AFD      | gost |    | G51170         | This grade's own name | uns      |
| 15G2AFDps    | gost |    | G61180         | This grade's own name | uns      |
| 15HM         | gost |    | H61180         | This grade's own name | uns      |
| 15KH         | gost |    | 4615           | This grade's own name | aisi-sae |
| 15KHGN2TA    | gost |    | 5015           | This grade's own name | aisi-sae |
| 15N2M        | gost |    | 5117           | This grade's own name | aisi-sae |
| 15H2M        | gost |    | 6118           | This grade's own name | aisi-sae |
| 15HM         | gost |    | 6118H          | This grade's own name | aisi-sae |
| 15XГHTA      | gost |    | United Kingdom |                       | 2        |
| ст.15HM      | gost |    | 17CrS3         |                       | bs       |
| ст.15H2M     | gost |    | 527M17         |                       | bs       |

|                                          |        |          |      |
|------------------------------------------|--------|----------|------|
| Japan                                    | 2      | Czechia  | 1    |
| SCr415                                   | jis    | 14120    | csn  |
| SCr415H                                  | jis    |          |      |
| Europe                                   | 1      | Slovakia | 1    |
| 17Cr3 <span>This grade's own name</span> | din-en | 14 120   | stn  |
| France                                   | 1      | Poland   | 1    |
| 12C3                                     | afnor  | 15H      | pn   |
| Spain                                    | 1      | Serbia   | 1    |
| F-1516                                   | une    | Č.4120   | srps |

**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 1.7016

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

[Start an enquiry](#)

|                                        |                                   |              |              |
|----------------------------------------|-----------------------------------|--------------|--------------|
| DATASHEET ONLINE                       | GRADE SEARCH                      | MATERIAL NO. | ISSUED       |
| <a href="#">View the material page</a> | <a href="#">Search all grades</a> | 1.7016       | Aug 20, 2026 |