

MATERIAL NUMBER 1.4125 · CLASS 1.4

# A756

## Material no. 1.4125

also listed as X105CrMo17

Chemical composition, mechanical and physical property values, and 50 standard designations from 10 regions.

**DENSITY****7.7** g/cm<sup>3</sup>**OTHER DESIGNATIONS****50** in 10 regions**PROPERTY VALUES****11** on file

### Chemical composition

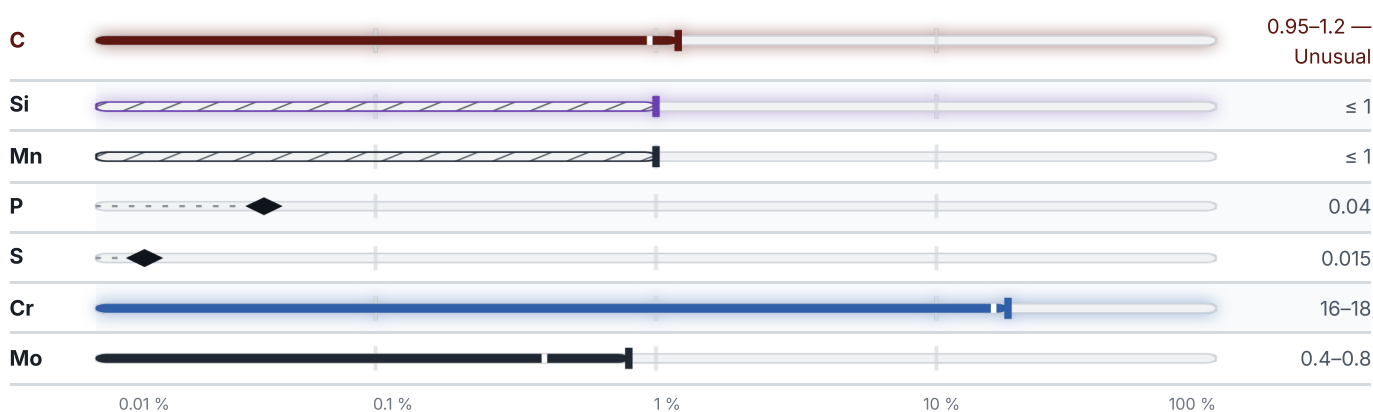
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 79.3 % ● Cr — 17 % ● C — 1.1 % ● Si — 1 % ● Traces & impurities · 1.7 %

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.

## Mechanical properties

6 values across 3 conditions

| SOFT ANNEALED                                      |                         |                         |         | HB     |
|----------------------------------------------------|-------------------------|-------------------------|---------|--------|
| Soft annealed                                      |                         |                         |         | 285    |
| CONDITION · DIMENSION                              | RM<br>N/mm <sup>2</sup> | RE<br>N/mm <sup>2</sup> | A5<br>% | Z<br>% |
| Bar                                                | 770                     | 420                     | 15      | 30     |
| CONDITION · DIMENSION                              |                         |                         |         | HB     |
| 95KH18 ( 95X18 ) (annealing) , Bar<br>GOST 5949-75 |                         |                         |         | 269    |

## Physical properties

4 values

| CONDITION · DIMENSION    | RHO<br>g/cm <sup>3</sup> | E<br>GPa | ALPHA<br>10 <sup>-6</sup> /K | LAMBDA<br>W/(m·K) | CP<br>J/(kg·K)    |
|--------------------------|--------------------------|----------|------------------------------|-------------------|-------------------|
| 20                       | 7.75                     | 204      | –                            | 24                | –                 |
| 100                      | 7.73                     | –        | 11.8                         | –                 | 483               |
| 200                      | –                        | –        | 12.3                         | –                 | –                 |
| 300                      | –                        | –        | 12.7                         | –                 | –                 |
| 400                      | –                        | –        | 13.1                         | –                 | –                 |
| 500                      | –                        | –        | 13.4                         | –                 | –                 |
| PROPERTY                 |                          |          |                              | VALUE             | UNIT              |
| Density                  |                          |          |                              | 7.7               | g/cm <sup>3</sup> |
| Transformation point Ac1 |                          |          |                              | 830               | °C                |
| Transformation point Ac3 |                          |          |                              | 1100              | °C                |
| Transformation point Ar3 |                          |          |                              | 810               | °C                |

## Designations across standards

50 designations · 5 documented as identical

| United States             |                       | 27       | Russia / CIS  |                       | 6      |
|---------------------------|-----------------------|----------|---------------|-----------------------|--------|
| S44002                    |                       | uns      | 110Ch18M-SChD |                       | gost   |
| S44003                    |                       | uns      | 95Ch18        |                       | gost   |
| S44004                    | This grade's own name | uns      | 95KH18        |                       | gost   |
| S44020                    |                       | uns      | 95X18         |                       | gost   |
| S44025                    | This grade's own name | uns      | 9X18          |                       | gost   |
| 400C                      |                       | aisi-sae | ЭИ229         |                       | gost   |
| 440A                      |                       | aisi-sae |               |                       |        |
| 440B                      |                       | aisi-sae | France        |                       | 2      |
| 440C                      | This grade's own name | aisi-sae | X105CrMo17    |                       | afnor  |
| 440F                      |                       | aisi-sae | Z100CD17      |                       | afnor  |
| 440FSe                    |                       | aisi-sae |               |                       |        |
| 51440C                    |                       | aisi-sae | International |                       | 2      |
| 617                       | This grade's own name | aisi-sae | A-1b          |                       | iso    |
| A756                      |                       | aisi-sae | X108CrMo17    |                       | iso    |
| S44004                    |                       | aisi-sae |               |                       |        |
| S44025                    |                       | aisi-sae | China         |                       | 2      |
| A 480                     |                       | astm     | 11Cr17        |                       | gb     |
| A276                      |                       | astm     | 9Cr18         |                       | gb     |
| A314                      |                       | astm     |               |                       |        |
| A473                      |                       | astm     | Europe        |                       | 1      |
| A484                      |                       | astm     | X105CrMo17    | This grade's own name | din-en |
| A493                      |                       | astm     |               |                       |        |
| A580                      |                       | astm     | Japan         |                       | 1      |
| F116                      |                       | astm     | SUS 440C      |                       | jis    |
| F1613                     |                       | astm     |               |                       |        |
| F2215                     |                       | astm     | Czechia       |                       | 1      |
| F899                      |                       | astm     | 17042         |                       | csn    |
| United States / Aerospace |                       | 7        | Poland        |                       | 1      |
| 5618                      |                       | ams      | H18           |                       | pn     |
| 5630                      |                       | ams      |               |                       |        |
| 5631                      |                       | ams      |               |                       |        |
| 5632                      |                       | ams      |               |                       |        |
| 5880                      |                       | ams      |               |                       |        |
| 5899                      |                       | ams      |               |                       |        |
| 7445                      |                       | ams      |               |                       |        |

**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 A756

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

[Start an enquiry](#)

DATASHEET ONLINE

[View the material page](#)

GRADE SEARCH

[Search all grades](#)

MATERIAL NO.

1.4125

ISSUED

Aug 20, 2026