

MATERIAL NUMBER 1.0481 · CLASS 1.0

# 14G2AF

Material no. 1.0481

also listed as 17Mn4

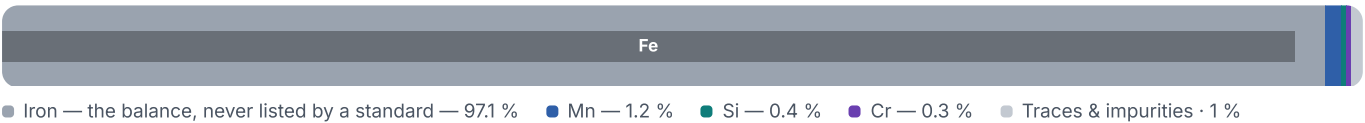
Chemical composition, mechanical and physical property values, and 83 standard designations from 16 regions.

|                                          |                                               |                                      |
|------------------------------------------|-----------------------------------------------|--------------------------------------|
| DENSITY<br><b>7.85</b> g/cm <sup>3</sup> | OTHER DESIGNATIONS<br><b>83</b> in 16 regions | PROPERTY VALUES<br><b>16</b> on file |
|------------------------------------------|-----------------------------------------------|--------------------------------------|

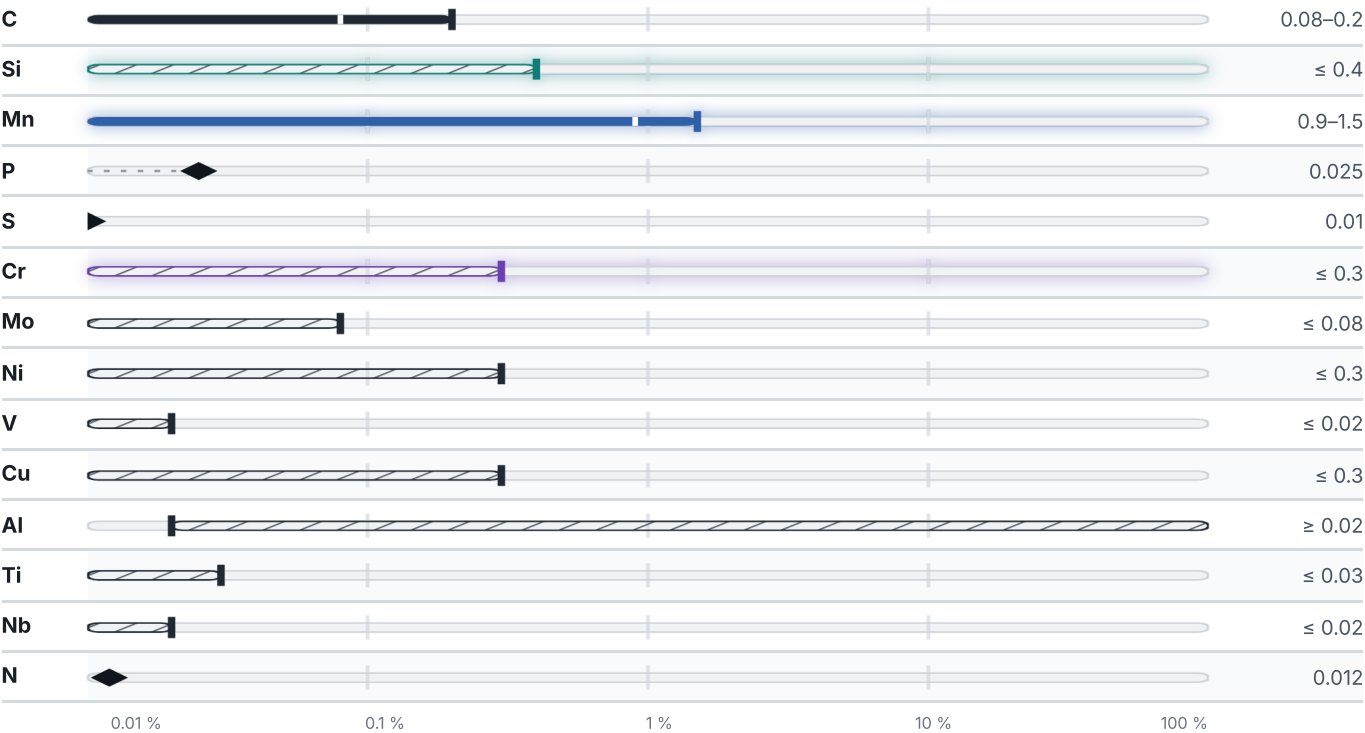
Chemical composition

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

computed from composition · °C

|                         |                         |                         |                        |
|-------------------------|-------------------------|-------------------------|------------------------|
| PREDICTED AE3<br>810 °C | PREDICTED AE1<br>714 °C | PREDICTED ACM<br>436 °C | PREDICTED BS<br>555 °C |
|-------------------------|-------------------------|-------------------------|------------------------|

Mechanical properties

13 values across 2 conditions

| NORMALIZED | REH<br>N/mm <sup>2</sup> | RM<br>N/mm <sup>2</sup> |
|------------|--------------------------|-------------------------|
| ≤ 16       | 295                      | —                       |
| 16 – 40    | 290                      | —                       |
| 40 – 60    | 285                      | —                       |
| 60 – 100   | 260                      | —                       |
| ≤ 100      | —                        | 460–580                 |
| 100 – 150  | 235                      | 440–570                 |
| 150 – 250  | 220                      | 430–570                 |

| CONDITION · DIMENSION | RM<br>N/mm <sup>2</sup> | RE<br>N/mm <sup>2</sup> | A5<br>% | KCU<br>kJ/m <sup>2</sup> |
|-----------------------|-------------------------|-------------------------|---------|--------------------------|
| Sheet, GOST 5520-79   | 430–520                 | 255–275                 | 20      | 590                      |

Physical properties

2 values

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

Technological properties

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

Heat treatment

1 regimes

| STEP        | TEMPERATURE            | MEDIUM |
|-------------|------------------------|--------|
| Normalizing | Temperature not stated | —      |

## Designations across standards

83 designations · 9 documented as identical

| United States |                       | 25       | Russia / CIS   |                       | 8      |
|---------------|-----------------------|----------|----------------|-----------------------|--------|
| K02203        | This grade's own name | uns      | 14G2           |                       | gost   |
| K02704        | This grade's own name | uns      | 14G2AF         |                       | gost   |
| K03101        | This grade's own name | uns      | 14G2AFD        |                       | gost   |
| K03102        | This grade's own name | uns      | 14KH2GMR       |                       | gost   |
| K03501        | This grade's own name | uns      | 14KH2GMRL      |                       | gost   |
| 1022          |                       | aisi-sae | 14Г2           |                       | gost   |
| A414(F)       |                       | aisi-sae | 18K            |                       | gost   |
| A414(G)       |                       | aisi-sae | ст.14Г2        |                       | gost   |
| A515(70)      |                       | aisi-sae | United Kingdom |                       | 7      |
| A516(70)      |                       | aisi-sae | 224-430        |                       | bs     |
| A516Gr.65     |                       | aisi-sae | 224-460B       |                       | bs     |
| Gr.B          |                       | aisi-sae | 224Gr.460      |                       | bs     |
| Gr.C          |                       | aisi-sae | 224Gr.490      |                       | bs     |
| K02203        |                       | aisi-sae | 430LT          |                       | bs     |
| K02403        |                       | aisi-sae | 440            |                       | bs     |
| K02700        |                       | aisi-sae | P295GH         |                       | bs     |
| K02704        |                       | aisi-sae | Europe         |                       | 5      |
| K03101        |                       | aisi-sae | 1.0436         |                       | din-en |
| K03102        |                       | aisi-sae | 17Mn4          | This grade's own name | din-en |
| K03103        |                       | aisi-sae | ASt45          |                       | din-en |
| X46           |                       | aisi-sae | P295GH         | This grade's own name | din-en |
| A414 Gr F     |                       | astm     | X46            |                       | din-en |
| A515 Grade 70 | This grade's own name | astm     | France         |                       | 5      |
| A516 Grade70  | This grade's own name | astm     | A 48CP         |                       | afnor  |
| A516(70)      |                       | astm     | A48AP          |                       | afnor  |
| Italy         |                       | 9        | A48FP          |                       | afnor  |
| Fe460-1KG     |                       | uni      | AP             |                       | afnor  |
| Fe460-1KW     |                       | uni      | P295GH         |                       | afnor  |
| Fe510-1KG     |                       | uni      | Spain          |                       | 3      |
| Fe510-1KT     |                       | uni      | A 47 RC1       |                       | une    |
| Fe510-1KW     |                       | uni      | A47RCI         |                       | une    |
| Fe510-2KG     |                       | uni      | RAII           |                       | une    |
| Fe510-2KT     |                       | uni      | Czechia        |                       | 3      |
| Fe510-2KW     |                       | uni      | 11478          |                       | csn    |
| P295GH        |                       | uni      | 11481          |                       | csn    |
| Japan         |                       | 8        | 13030          |                       | csn    |
| SB46          |                       | jis      | International  |                       | 2      |
| SB49          |                       | jis      | P11            |                       | iso    |
| SG365         |                       | jis      | P290           |                       | iso    |
| SGV410        |                       | jis      |                |                       |        |
| SGV450        |                       | jis      |                |                       |        |
| SGV480        |                       | jis      |                |                       |        |
| SPV315        |                       | jis      |                |                       |        |
| SPV32         |                       | jis      |                |                       |        |

|                 |     |   |                |       |   |
|-----------------|-----|---|----------------|-------|---|
| <b>Sweden</b>   |     | 2 | <b>Hungary</b> |       | 1 |
| 2102            | ss  |   | P295GH         | msz   |   |
| 2103            | ss  |   | <b>Romania</b> |       | 1 |
| <b>Bulgaria</b> |     | 2 | K460           | stas  |   |
| 16GS            | bds |   | <b>Austria</b> |       | 1 |
| P295GH          | bds |   | 17Mn4KW        | onorm |   |
| <b>Slovakia</b> |     | 1 |                |       |   |
| 13 030          | stn |   |                |       |   |

**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 14G2AF**  
Quotation, availability, mill certificate or a technical question — directly on the material page.

[Start an enquiry](#)

|                                                   |                                          |                               |                               |
|---------------------------------------------------|------------------------------------------|-------------------------------|-------------------------------|
| <b>DATASHEET ONLINE</b><br>View the material page | <b>GRADE SEARCH</b><br>Search all grades | <b>MATERIAL NO.</b><br>1.0481 | <b>ISSUED</b><br>Aug 20, 2026 |
|---------------------------------------------------|------------------------------------------|-------------------------------|-------------------------------|