

MATERIAL NUMBER 1.6580 · CLASS 1.6

# 16430ŽH

Material no. 1.6580

also listed as 30CrNiMo8

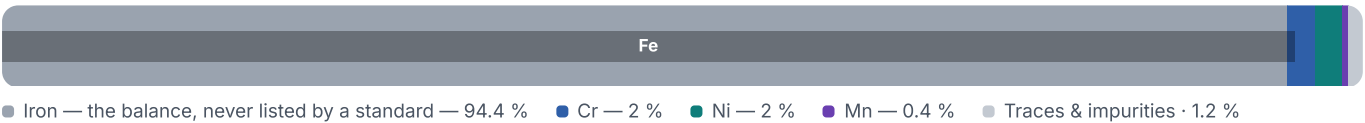
Chemical composition, mechanical and physical property values, and 29 standard designations from 14 regions.

|                              |                                               |                                      |
|------------------------------|-----------------------------------------------|--------------------------------------|
| DENSITY<br><b>7.76</b> g/cm³ | OTHER DESIGNATIONS<br><b>29</b> in 14 regions | PROPERTY VALUES<br><b>12</b> on file |
|------------------------------|-----------------------------------------------|--------------------------------------|

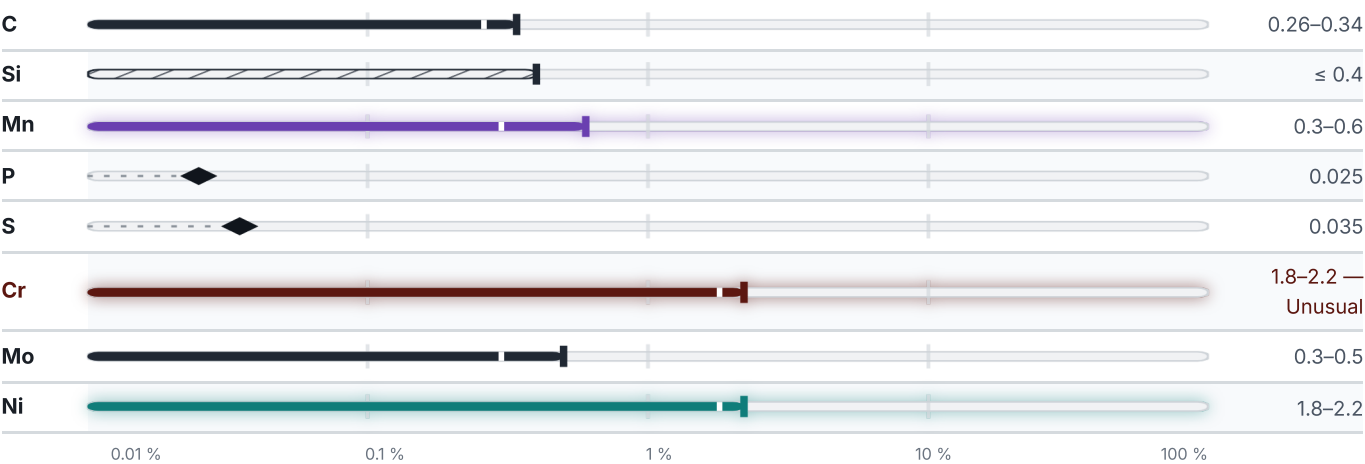
## Chemical composition

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

This grade's composition falls outside the published model's validated range (a low-alloy composition window), so no transformation temperature is predicted here.

Mechanical properties

12 values across 4 conditions

|                                                   |                         |                         |         |        |                          |
|---------------------------------------------------|-------------------------|-------------------------|---------|--------|--------------------------|
| QUENCHED AND TEMPERED · ROUND PRODUCTS            |                         |                         |         |        | A<br>% · Lo = 5,65 √So   |
| ≤ 16                                              |                         |                         |         |        | 9                        |
| 16 – 40                                           |                         |                         |         |        | 9                        |
| 40 – 100                                          |                         |                         |         |        | 10                       |
| 100 – 160                                         |                         |                         |         |        | 11                       |
| 160 – 250                                         |                         |                         |         |        | 12                       |
| SOFT ANNEALED                                     |                         |                         |         |        | HB                       |
| Soft annealed                                     |                         |                         |         |        | 248–255                  |
| QUENCHING AND DRAWING                             | 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> |
| Ø 15                                              | 980                     | 785                     | 10      | 45     | 780                      |
| CONDITION · DIMENSION                             |                         |                         |         |        | HB                       |
| 30KH2MA ( 30XH2MA ) (annealing)<br>, GOST 4543-71 |                         |                         |         |        | 241                      |

Physical properties

4 values

|                          |          |                   |
|--------------------------|----------|-------------------|
| CONDITION · DIMENSION    | E<br>GPa |                   |
| 20                       | 204      |                   |
| 100                      | 201      |                   |
| 200                      | 194      |                   |
| 300                      | 186      |                   |
| 400                      | 182      |                   |
| 500                      | 171      |                   |
| 600                      | 159      |                   |
| PROPERTY                 | VALUE    | UNIT              |
| Density                  | 7.76     | g/cm <sup>3</sup> |
| Transformation point Ac1 | 730      | °C                |
| Transformation point Ac3 | 775      | °C                |

Technological properties

| PROPERTY          | VALUE       | UNIT |
|-------------------|-------------|------|
| Flake sensitivity | predisposed |      |

Heat treatment

1 regimes

| STEP                                                  | TEMPERATURE            | MEDIUM |
|-------------------------------------------------------|------------------------|--------|
| source joins the operations with + / procedural order |                        |        |
| Quenching                                             | Temperature not stated | —      |
| Tempering                                             | Temperature not stated | —      |

Designations across standards

29 designations · 3 documented as identical

|                           |          |                       |               |                       |        |
|---------------------------|----------|-----------------------|---------------|-----------------------|--------|
| United States / Aerospace |          | 5                     | France        |                       | 2      |
| 6359                      | ams      |                       | 30CND8        |                       | afnor  |
| 6409                      | ams      |                       | 30NCD8        | This grade's own name | afnor  |
| 6414                      | ams      |                       | Japan         |                       | 2      |
| 6415                      | ams      |                       |               |                       |        |
| 6454                      | ams      |                       | SNCM431       |                       | jis    |
| Russia / CIS              |          | 4                     | SNCM439       |                       | jis    |
| 30KHN2MA                  | gost     |                       | Poland        |                       | 2      |
| 30XH2MA                   | gost     |                       | 30H2N2A       |                       | pn     |
| 30XHMA                    | gost     |                       | 30H2N2M       |                       | pn     |
| 3KH3M3F                   | gost     |                       | Europe        |                       | 1      |
| United States             |          | 3                     | 30CrNiMo8     | This grade's own name | din-en |
| G43400                    | uns      |                       | International |                       | 1      |
| 4340                      | aisi-sae |                       | 31CrNiMo8     |                       | iso    |
| A829                      | astm     |                       | China         |                       | 1      |
| Czechia                   |          | 3                     | 30Cr2Ni2Mo    |                       | gb     |
| 16430VN                   | csn      |                       | Serbia        |                       | 1      |
| 16430ŽH                   | csn      |                       |               |                       |        |
| 16435                     | csn      |                       | Č.5432        |                       | srps   |
| United Kingdom            |          | 2                     | Croatia       |                       | 1      |
| 823M30                    | bs       |                       | Č.5432        |                       | hrn    |
| 823M40                    | bs       | This grade's own name | Hungary       |                       | 1      |
|                           |          |                       | NCMo 6        |                       | msz    |

**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 16430ŽH

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

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ISSUED

Sep 8, 2026