

MATERIAL NUMBER 1.0330 · CLASS 1.0

# DC 01

## Material no. 1.0330

Chemical composition, mechanical and physical property values, and 42 standard designations from 16 regions.

|                              |                                               |                                      |
|------------------------------|-----------------------------------------------|--------------------------------------|
| DENSITY<br><b>7.85</b> g/cm³ | OTHER DESIGNATIONS<br><b>42</b> in 16 regions | PROPERTY VALUES<br><b>14</b> on file |
|------------------------------|-----------------------------------------------|--------------------------------------|

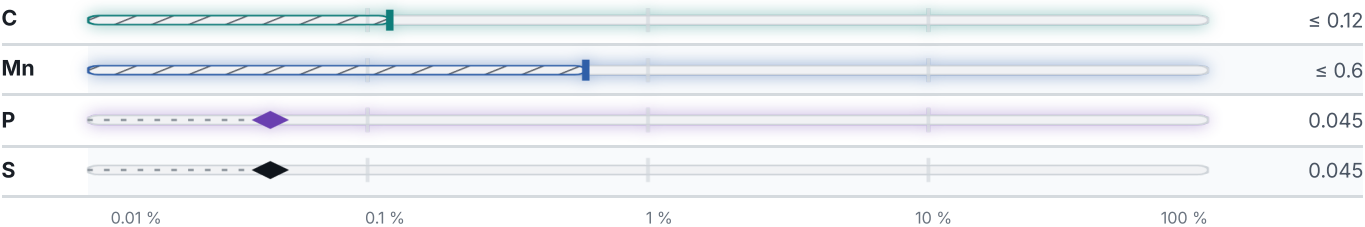
### Chemical composition

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: Si, Ni, Cr, Mo.

### Mechanical properties

20 values across 6 conditions

| CONDITION · DIMENSION       | RM<br>N/mm² | A5<br>% | Z<br>% | HB  |
|-----------------------------|-------------|---------|--------|-----|
| Rolled stock, GOST 10702-78 | 370         | 8       | 55     | —   |
| (hot-rolled) , GOST 1050-88 | —           | —       | —      | 131 |

| CONDITION · DIMENSION                    | RM<br>N/mm <sup>2</sup> | A5<br>%                 | Z<br>%  | HB     |
|------------------------------------------|-------------------------|-------------------------|---------|--------|
| (cold-drawn, cold-worked) , GOST 1050-88 | –                       | –                       | –       | 179    |
| Sheet GOST 4041-71                       | –                       | –                       | –       | 109    |
| Rolled stock GOST 1050-88                | –                       | –                       | –       | 131    |
| SOFT ANNEALED                            |                         |                         |         | HV     |
| Soft annealed                            |                         |                         |         | 105    |
| CONDITION · DIMENSION                    | RM<br>N/mm <sup>2</sup> | A5<br>%                 |         |        |
| 4 - 8                                    | 270-410                 |                         | 32      |        |
| CONDITION · DIMENSION                    | RM<br>N/mm <sup>2</sup> | Z<br>%                  |         |        |
| Bar cold-drawn , GOST 10702-78           | 310-410                 |                         | 55      |        |
| NORMALIZING                              | RM<br>N/mm <sup>2</sup> | RE<br>N/mm <sup>2</sup> | A5<br>% | Z<br>% |
| to 80                                    | 320                     | 196                     | 33      | 60     |
| NORMALIZING                              | RM<br>N/mm <sup>2</sup> | RE<br>N/mm <sup>2</sup> | A5<br>% | Z<br>% |
| 6 - 60                                   | 320                     | 196                     | 33      | 60     |

## Physical properties

8 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) | RHO_EL<br>nΩ·m |
|-----------------------|--------------------------|----------|------------------------------|-------------------|----------------|----------------|
| 20                    | 7.871                    | 203      | –                            | –                 | –              | –              |
| 100                   | 7.846                    | 207      | 12.5                         | 60                | 482            | 178            |
| 200                   | 7.814                    | 182      | 13.4                         | 56                | 498            | 252            |
| 300                   | 7.781                    | 153      | 14                           | 51                | 514            | 341            |
| 400                   | 7.745                    | 141      | 14.5                         | 47                | 533            | 448            |
| 500                   | 7.708                    | –        | 14.9                         | 41                | 555            | 575            |
| 600                   | 7.668                    | –        | 15.1                         | 37                | 584            | 725            |
| 700                   | 7.628                    | –        | 15.3                         | 34                | 626            | 898            |
| 800                   | 7.598                    | –        | 14.7                         | 30                | 695            | 1073           |
| 900                   | 7.602                    | –        | 12.7                         | 27                | 703            | 1124           |
| 1000                  | –                        | –        | 13.8                         | –                 | 695            | –              |

| PROPERTY                 | VALUE | UNIT              |
|--------------------------|-------|-------------------|
| Density                  | 7.85  | g/cm <sup>3</sup> |
| Transformation point Ac1 | 735   | °C                |
| Transformation point Ac3 | 874   | °C                |
| Transformation point Ar3 | 854   | °C                |
| Transformation point Ar1 | 680   | °C                |

## Technological properties

| PROPERTY           | VALUE                | UNIT |
|--------------------|----------------------|------|
| Weldability        | without limitations. |      |
| Flake sensitivity  | not predisposed      |      |
| Temper brittleness | not predisposed      |      |

## Designations across standards

42 designations · 6 documented as identical

|                                             |          |                                           |      |
|---------------------------------------------|----------|-------------------------------------------|------|
| <b>United States</b>                        | 10       | <b>Czechia</b>                            | 4    |
| G10080 <small>This grade's own name</small> | uns      | 11300                                     | csn  |
| 1008 <small>This grade's own name</small>   | aisi-sae | 11304                                     | csn  |
| 1012                                        | aisi-sae | 11321                                     | csn  |
| A620                                        | aisi-sae | 11331                                     | csn  |
| A622                                        | aisi-sae |                                           |      |
| G10080                                      | aisi-sae | <b>United Kingdom</b>                     | 3    |
| SAE1008                                     | aisi-sae | 1449-2                                    | bs   |
| SAE1010                                     | aisi-sae | CR4                                       | bs   |
| A366                                        | astm     | FeP01                                     | bs   |
| A619                                        | astm     |                                           |      |
| <b>Europe</b>                               | 5        | <b>China</b>                              | 3    |
| DC 01 <small>This grade's own name</small>  | din-en   | 08                                        | gb   |
| FeP01                                       | din-en   | 08F                                       | gb   |
| SAE1010                                     | din-en   | DC01 <small>This grade's own name</small> | gb   |
| St 12 <small>This grade's own name</small>  | din-en   | <b>International</b>                      | 2    |
| St 2 <small>This grade's own name</small>   | din-en   | Cr01                                      | iso  |
|                                             |          | CR22                                      | iso  |
| <b>France</b>                               | 4        | <b>Japan</b>                              | 2    |
| 3C                                          | afnor    | SPCC                                      | jis  |
| C                                           | afnor    | SPHE                                      | jis  |
| F12                                         | afnor    |                                           |      |
| FeP01                                       | afnor    | <b>Russia / CIS</b>                       | 2    |
|                                             |          | 08kp                                      | gost |
|                                             |          | 08ps                                      | gost |

|               |     |                 |       |
|---------------|-----|-----------------|-------|
| <b>Spain</b>  | 1   | <b>Slovakia</b> | 1     |
| AP00          | une | 11 321          | stn   |
| <b>Italy</b>  | 1   | <b>Bulgaria</b> | 1     |
| FeP01         | uni | 08ps            | bds   |
| <b>Sweden</b> | 1   | <b>Austria</b>  | 1     |
| 1142          | ss  | St02F           | onorm |
| <b>Poland</b> | 1   |                 |       |
| 08Y           | pn  |                 |       |

**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 DC 01**  
Quotation, availability, mill certificate or a technical question — directly on the material page.

[Start an enquiry](#)

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