

# Y108Cr17

Chemical composition, mechanical and physical property values, and 1 standard designations from 1 regions.

|                                   |                                             |                                      |
|-----------------------------------|---------------------------------------------|--------------------------------------|
| ELASTIC MODULUS<br><b>200</b> GPa | OTHER DESIGNATIONS<br><b>1</b> in 1 regions | PROPERTY VALUES<br><b>13</b> on file |
|-----------------------------------|---------------------------------------------|--------------------------------------|

## Chemical composition

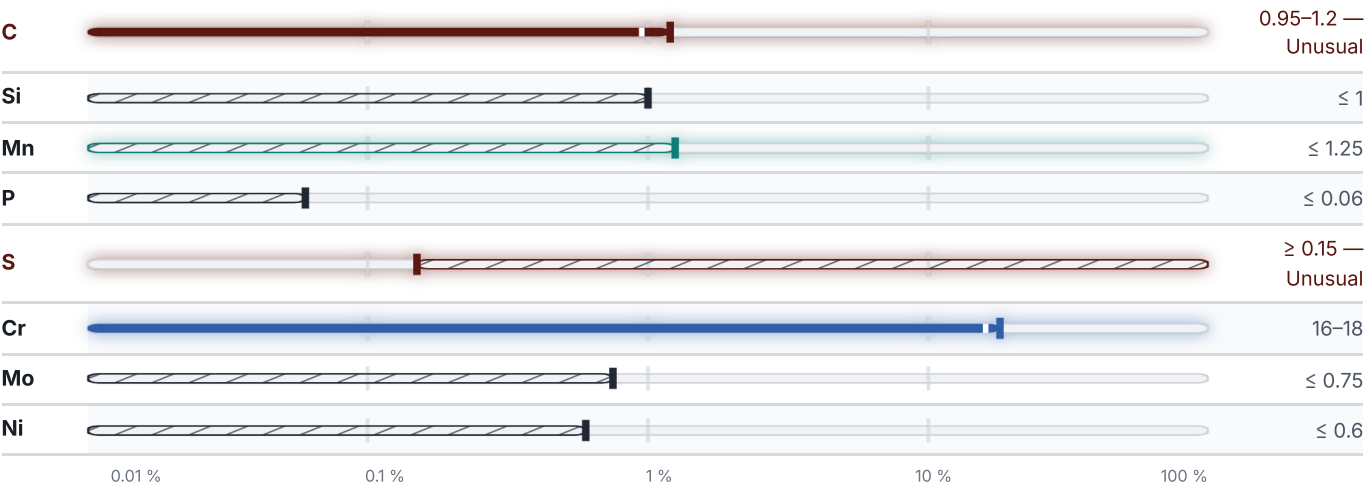
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 78.1 % ● Cr — 17 % ● Mn — 1.3 % ● C — 1.1 % ● Traces & impurities · 2.6 %

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.

Physical properties

5 values

| CONDITION · DIMENSION | E<br>GPa | ALPHA<br>10 <sup>-6</sup> /K | LAMBDA<br>W/(m·K) | CP<br>J/(kg·K) |
|-----------------------|----------|------------------------------|-------------------|----------------|
| 20                    | 200      | —                            | —                 | —              |
| 100                   | 195      | 10.1                         | 24.2              | —              |
| 200                   | 185      | —                            | —                 | —              |
| 300                   | 175      | —                            | —                 | —              |
| 400                   | 170      | —                            | —                 | —              |
| 500                   | —        | —                            | —                 | 460            |

| PROPERTY                      | VALUE | UNIT                |
|-------------------------------|-------|---------------------|
| Elastic modulus               | 200   | GPa                 |
| Thermal expansion coefficient | 10.1  | 10 <sup>-6</sup> /K |
| Thermal conductivity          | 24.2  | W/(m·K)             |
| Specific heat capacity        | 460   | J/(kg·K)            |
| Electrical resistivity        | 600   | nΩ·m                |

Heat treatment

3 regimes

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

Designations across standards

1 designations · 1 documented as identical

|                                             |    |
|---------------------------------------------|----|
| China                                       | 1  |
| Y108Cr17 <span>This grade's own name</span> | gb |

**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 Y108Cr17

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

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MATERIAL NO.

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ISSUED

Aug 15, 2026