

MATERIAL NUMBER 1.3401 · CLASS 1.3

# ZGMn13-1

## Material no. 1.3401

also listed as X120Mn12

Chemical composition, mechanical and physical property values, and 57 standard designations from 19 regions.

**DENSITY****7.85** g/cm<sup>3</sup>**OTHER DESIGNATIONS****57** in 19 regions**PROPERTY VALUES****10** on file

### Chemical composition

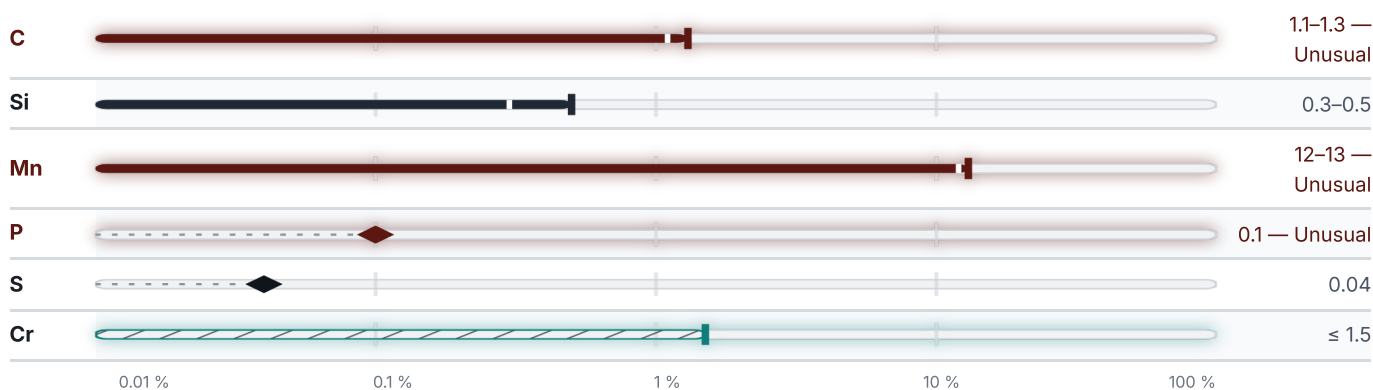
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 84.3 % ● Mn — 12.5 % ● Cr — 1.5 % ● C — 1.2 % ● Traces & impurities · 0.5 %

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, Mo.

Mechanical properties

4 values across 1 conditions

| CONDITION · DIMENSION  | RM<br>N/mm <sup>2</sup> | RE<br>N/mm <sup>2</sup> | A5<br>% | Z<br>% |
|------------------------|-------------------------|-------------------------|---------|--------|
| Casting, GOST 21357-87 | 800                     | 400                     | 25      | 35     |

Physical properties

4 values

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

Technological properties

| PROPERTY           | VALUE           | UNIT |
|--------------------|-----------------|------|
| Weldability        | is not used.    |      |
| Flake sensitivity  | not predisposed |      |
| Temper brittleness | not predisposed |      |

Designations across standards

57 designations · 1 documented as identical

|                 |          |               |       |
|-----------------|----------|---------------|-------|
| United States9  |          | Japan5        |       |
| A128            | aisi-sae | SCMnH         | jis   |
| A128(A)         | aisi-sae | SCMnH1        | jis   |
| J91109          | aisi-sae | SCMnH11       | jis   |
| J91119          | aisi-sae | SCMnH2        | jis   |
| J91129          | aisi-sae | SCMnH3        | jis   |
| J91139          | aisi-sae |               |       |
| J91149          | aisi-sae | Russia / CIS5 |       |
| A128            | astm     | 110G13L       | gost  |
| A128(A)         | astm     | 110Г13Л       | gost  |
|                 |          | 120G13        | gost  |
| Spain7          |          | EI256         | gost  |
| 120             | une      | G13           | gost  |
| AM-X-120Mn12    | une      |               |       |
| F.240           | une      | France4       |       |
| F.8251          | une      | GD 233        | afnor |
| F.82551-AM-X    | une      | Z120M12       | afnor |
| Mn12            | une      | Z120M12M      | afnor |
| X120Mn12        | une      | Z120Mn12      | afnor |
| United Kingdom6 |          | China4        |       |
| BW10            | bs       | ZGMn13-1      | gb    |
| Ma2             | bs       | ZGMn13-1-4    | gb    |
| Ma3             | bs       | ZGMn13-2      | gb    |
| Ma5             | bs       | ZGMn13-3      | gb    |
| MaZ             | bs       |               |       |
| Z120M12         | bs       |               |       |

|           |                                 |             |       |
|-----------|---------------------------------|-------------|-------|
| Europe    | 2                               | Sweden      | 1     |
| 1.3401    | din-en                          | 2183        | ss    |
| X120Mn12  | This grade's own name<br>din-en |             |       |
| Italy     | 2                               | Slovakia    | 1     |
| GX120Mn12 | uni                             | 17 618      | stn   |
| XG120Mn12 | uni                             | Serbia      | 1     |
| Czechia   | 2                               | Č.3160      | srps  |
| 17618     | csn                             | Hungary     | 1     |
| 422920    | csn                             | X120Mn13    | msz   |
| Poland    | 2                               | Austria     | 1     |
| C120G13   | pn                              | BOHLERK700  | onorm |
| L120G13   | pn                              | Finland     | 1     |
| Romania   | 2                               | G-X120Mn13  | sfs   |
| T105Mn120 | stas                            | South Korea | 1     |
| T130Mn135 | stas                            | SCMnH1      | ks    |

**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 ZGMn13-1

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

[Start an enquiry](#)

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