

MATERIAL NUMBER 1.4837 · CLASS 1.4

# 40Ch24N12SL

Material no. 1.4837

also listed as GX40CrNiSi25-12

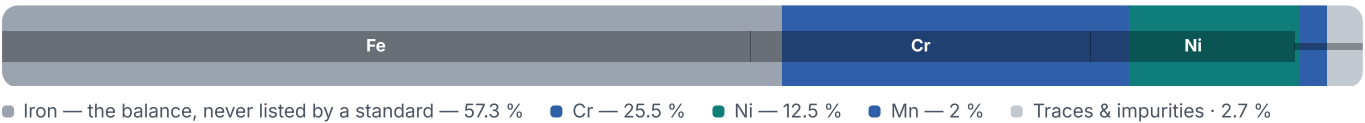
Chemical composition, mechanical and physical property values, and 20 standard designations from 7 regions.

|                                          |                                              |                                      |
|------------------------------------------|----------------------------------------------|--------------------------------------|
| DENSITY<br><b>7.85</b> g/cm <sup>3</sup> | OTHER DESIGNATIONS<br><b>20</b> in 7 regions | PROPERTY VALUES<br><b>12</b> on file |
|------------------------------------------|----------------------------------------------|--------------------------------------|

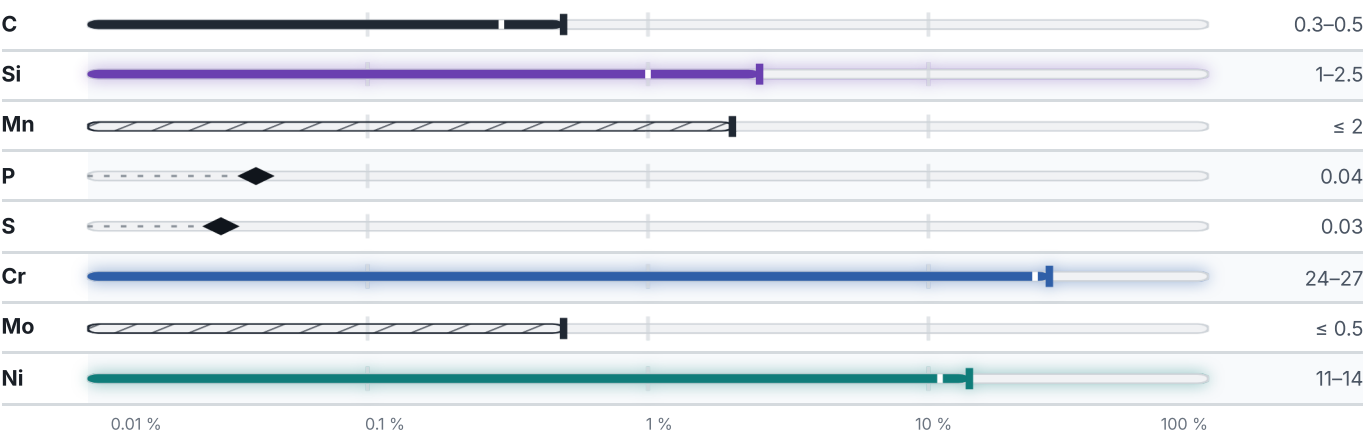
## Chemical composition

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

4 values across 1 conditions

| QUENCHING 1050°C | RM<br>N/mm² | RE<br>N/mm² | A5<br>% | Z<br>% |
|------------------|-------------|-------------|---------|--------|
| to 100           | 491         | 245         | 20      | 28     |

Physical properties

4 values

| CONDITION · DIMENSION | RHO<br>g/cm³ | E<br>GPa | ALPHA<br>10 <sup>-6</sup> /K | RHO_EL<br>nΩ·m |
|-----------------------|--------------|----------|------------------------------|----------------|
| 20                    | 7.8          | 196      | –                            | 860            |
| 100                   | –            | –        | 18.4                         | –              |
| 500                   | –            | 167      | –                            | –              |
| 600                   | –            | 157      | –                            | –              |
| 700                   | –            | 145      | –                            | –              |

| PROPERTY | VALUE | UNIT  |
|----------|-------|-------|
| Density  | 7.85  | g/cm³ |

Technological properties

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

Designations across standards

20 designations · 5 documented as identical

|               |                       |          |                 |                       |        |
|---------------|-----------------------|----------|-----------------|-----------------------|--------|
| United States |                       | 8        | Europe          |                       | 2      |
| J93503        | This grade's own name | uns      | 1.4837          |                       | din-en |
| J93513        | This grade's own name | uns      | GX40CrNiSi25-12 | This grade's own name | din-en |
| J93633        | This grade's own name | uns      |                 |                       |        |
| J94003        |                       | uns      | Russia / CIS    |                       | 2      |
| J94013        | This grade's own name | uns      | 40Ch24N12SL     |                       | gost   |
| J93503        |                       | aisi-sae | 40KH24N12SL     |                       | gost   |
| J94003        |                       | aisi-sae |                 |                       |        |
| J94013        |                       | aisi-sae | United Kingdom  |                       | 1      |
| Japan         |                       | 5        | 309C30          |                       | bs     |
| SCH 13        |                       | jis      | China           |                       | 1      |
| SCH 13A       |                       | jis      | ZG35Cr26Ni12    |                       | gb     |
| SCH 13X       |                       | jis      |                 |                       |        |
| SCH 17        |                       | jis      | Czechia         |                       | 1      |
| SCS 17        |                       | jis      | 422 936         |                       | csn    |

**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 40Ch24N12SL

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

[Start an enquiry](#)

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**MATERIAL NO.**  
1.4837

**ISSUED**  
Aug 20, 2026