

MATERIAL NUMBER 1.3964 · CLASS 1.3

# A193 Grade B8R

Material no. 1.3964

also listed as X2CrNiMnMoNNb21-16-5-3

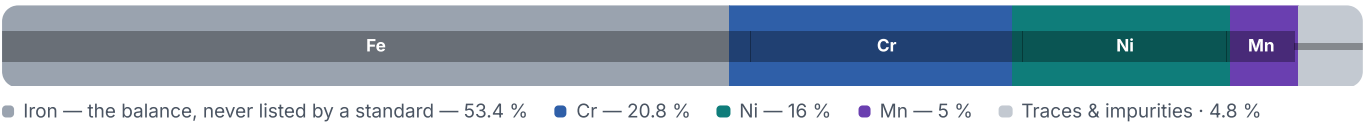
Chemical composition, mechanical and physical property values, and 11 standard designations from 3 regions.

|                             |                                              |                                      |
|-----------------------------|----------------------------------------------|--------------------------------------|
| DENSITY<br><b>7.9</b> g/cm³ | OTHER DESIGNATIONS<br><b>11</b> in 3 regions | PROPERTY VALUES<br><b>11</b> on file |
|-----------------------------|----------------------------------------------|--------------------------------------|

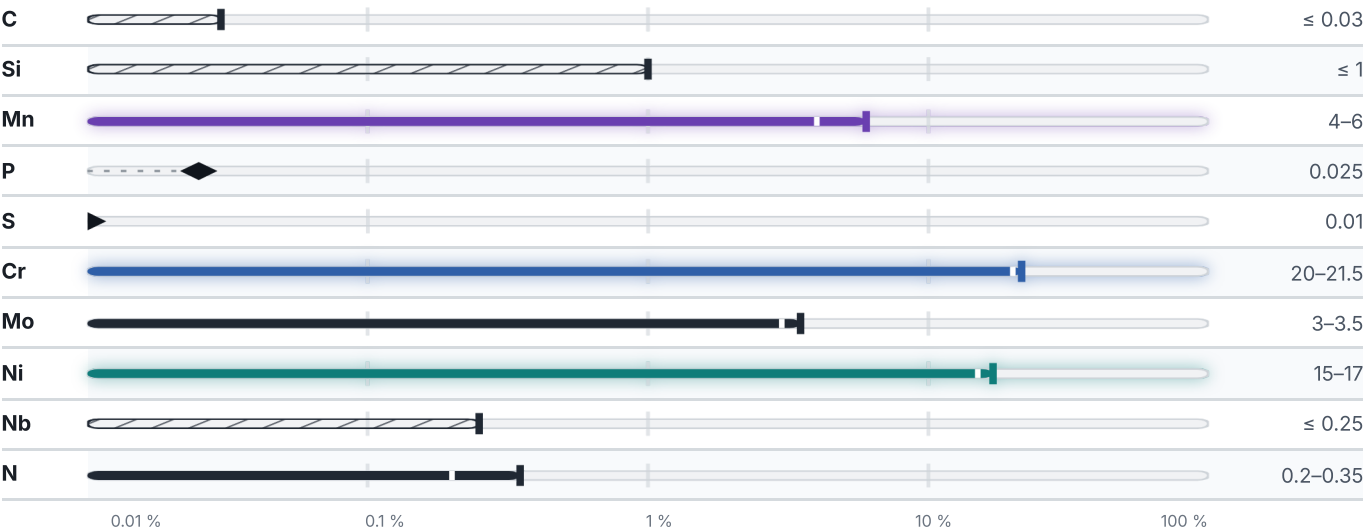
Chemical composition

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.

Physical properties

1 values

| PROPERTY | VALUE | UNIT              |
|----------|-------|-------------------|
| Density  | 7.9   | g/cm <sup>3</sup> |

Designations across standards

11 designations · 3 documented as identical

| United States  |                       | 9        | Europe                    |                       | 1      |
|----------------|-----------------------|----------|---------------------------|-----------------------|--------|
| S20910         | This grade's own name | uns      | X2CrNiMnMoNNb21-16-5-3    | This grade's own name | din-en |
| XM-19          | This grade's own name | aisi-sae | United States / Aerospace |                       |        |
| A193 Grade B8R |                       | astm     | 5764                      |                       | ams    |
| A194 Grade B8  |                       | astm     |                           |                       |        |
| A240           |                       | astm     |                           |                       |        |
| A276           |                       | astm     |                           |                       |        |
| A314           |                       | astm     |                           |                       |        |
| A412           |                       | astm     |                           |                       |        |
| A479           |                       | astm     |                           |                       |        |

**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 A193 Grade B8R

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

Start an enquiry

|                        |                   |              |              |
|------------------------|-------------------|--------------|--------------|
| DATASHEET ONLINE       | GRADE SEARCH      | MATERIAL NO. | ISSUED       |
| View the material page | Search all grades | 1.3964       | Aug 20, 2026 |