SteelEquivalents.com

Material datasheet
As of Aug 20, 2026

MATERIAL NUMBER 1.4507 · CLASS 1.4

Type 255

Material no. 1.4507

also listed as X2CrNiMoCuN25-6-3

Chemical composition, mechanical and physical property values, and 9 standard designations from 3 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.8 g/cm³	9 in 3 regions	11 on file

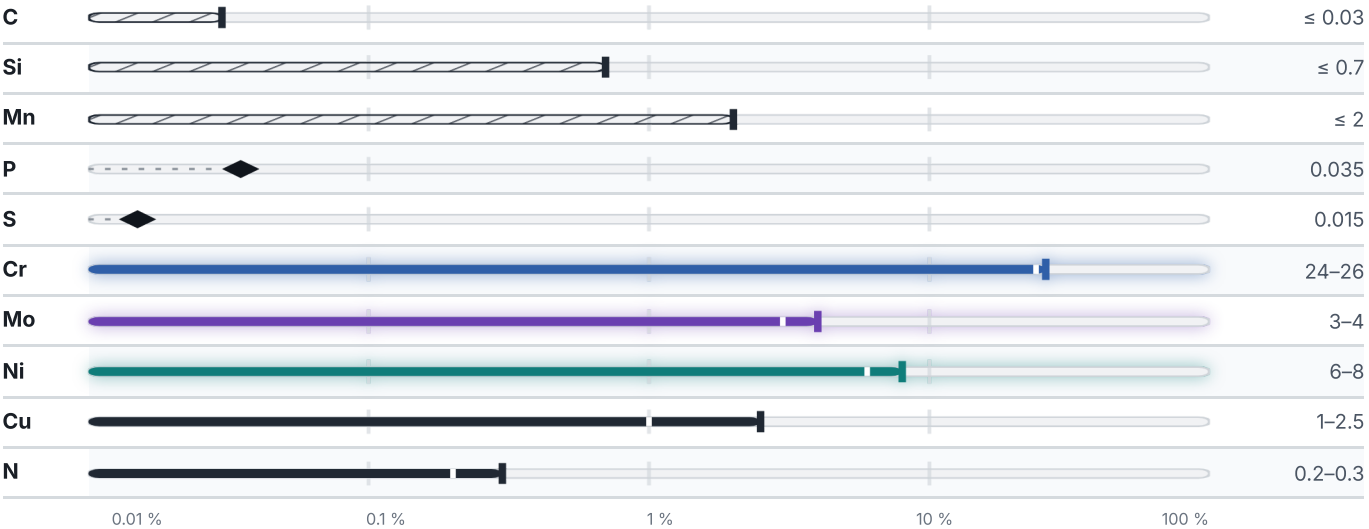
Chemical composition

Mass fraction in %

What this alloy is

Iron — the balance, never listed by a standard — 59.7 % · Cr — 25 % · Ni — 7 % · Mo — 3.5 % · Traces & impurities · 4.8 %

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

8 values across 3 conditions

CONDITION · DIMENSION	RM N/mm²	RE N/mm²	A %	HB	HRC	HV
Plate/Sheet Hot-rolled	620	450	18	–	–	–
Hot-rolled	–	–	–	302	32	320
SOFT ANNEALED						HB
Soft annealed						270
SOLUTION ANNEALED						HB
Solution annealed						310

Physical properties

1 values

PROPERTY	VALUE	UNIT
Density	7.8	g/cm³

Designations across standards

9 designations · 5 documented as identical

United States 7

S32500 This grade's own name	uns
S32505 This grade's own name	uns
S32520 This grade's own name	uns
S32550 This grade's own name	uns
A182 grade F59	astm
A182 grade F61	astm
Type 255	astm

Europe 1

X2CrNiMoCuN25-6-3 This grade's own name	din-en

Japan 1

SUS329J4L	jis

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 Type 255

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	1.4507	Aug 20, 2026