

MATERIAL NUMBER 1.4510 · CLASS 1.4

31645

Material no. 1.4510

also listed as X3CrTi17

Chemical composition, mechanical and physical property values, and 42 standard designations from 13 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.7 g/cm ³	42 in 13 regions	10 on file

Chemical composition

Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 80.9 % ● Cr — 17 % ● Si — 1 % ● Mn — 1 % ● Traces & impurities · 0.1 %

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

8 values across 3 conditions

CONDITION · DIMENSION	RM N/mm ²	A5 %
Pipe cooling strain, GOST 9941-81	372	17
Pipe hot strain, GOST 9940-81	372	17
CONDITION · DIMENSION	RM N/mm ²	A5 %
Sheet trick, GOST 7350-77	440	18
CONDITION · DIMENSION	RM N/mm ²	A5 %
Sheet thin, GOST 5582-75	460	20

Physical properties

3 values

CONDITION · DIMENSION	RHO g/cm ³	E GPa	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)	CP J/(kg·K)	RHO_EL nΩ·m
20	7.7	206	—	25	—	600
100	—	—	10	—	462	—
200	—	—	10	—	—	—
300	—	—	10.5	—	—	—
400	—	—	10.5	—	—	—
500	—	—	11	—	—	—
PROPERTY	VALUE		UNIT			
Density	7.7		g/cm ³			

Technological properties

PROPERTY	VALUE	UNIT
Weldability	limited weldability.	
Temper brittleness	predisposed	

Designations across standards

42 designations · 6 documented as identical

United States		16	Japan		3
S43035	This grade's own name	uns	SUS 430LXTB		jis
S43036	This grade's own name	uns	SUS XM8TB		jis
S43900		uns	SUS430LX		jis
430 Ti 439		aisi-sae			
430Ti	This grade's own name	aisi-sae			
439	This grade's own name	aisi-sae			
S43035		aisi-sae			
S43036		aisi-sae			
S43900		aisi-sae			
TP430Ti		aisi-sae			
XM8 430 Ti 439		aisi-sae			
A240		astm			
A268		astm			
A463		astm			
A479		astm			
A803		astm			
Russia / CIS		5	Italy		3
08Ch17T		gost	X3CrTi17		uni
08KH17T		gost	X6CrNb17		uni
08X17T		gost	X6CrTi17		uni
0X17T		gost			
ЭИ645		gost			
France		3	Europe		2
Z4CNb17		afnor	X3CrTi17	This grade's own name	din-en
Z4CT17		afnor	X6CrTi17	This grade's own name	din-en
Z8CT17		afnor			
Spain		3	China		2
F.3114		une	00Cr17		gb
F.3115		une	022Cr18Ti		gb
X5CrTi17		une			
			International		1
			FP18B		iso
			Czechia		1
			17041		csn
			Poland		1
			0H17T		pn
			Serbia		1
			Č.4970.1		srps
			Romania		1
			8TiCr170		stas

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 ЭИ645

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

Start an enquiry

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ISSUED

Aug 20, 2026