

MATERIAL NUMBER 1.4746 · CLASS 1.4

3M439

Material no. 1.4746

also listed as X8CrTi25

Chemical composition, mechanical and physical property values, and 14 standard designations from 9 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
7.85 g/cm ³	14 in 9 regions	9 on file

Chemical composition

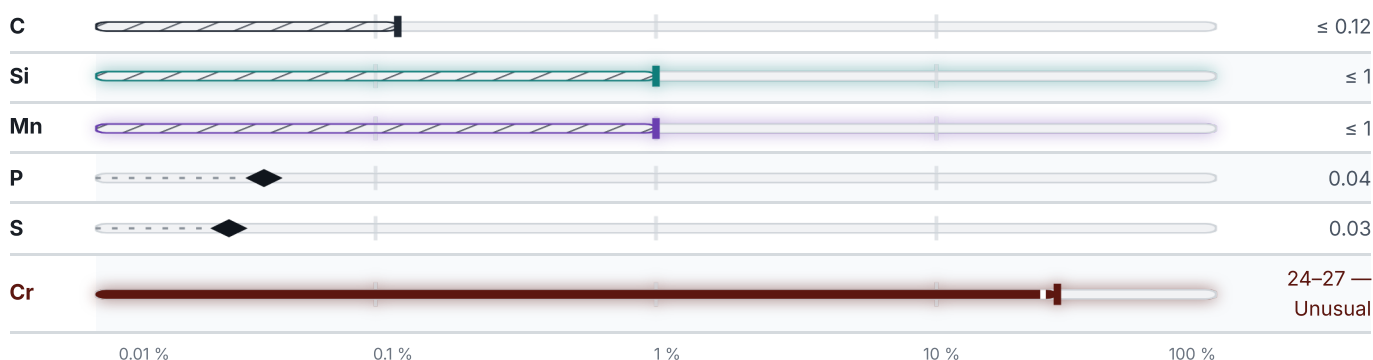
Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 72.3 % ● Cr — 25.5 % ● Si — 1 % ● Mn — 1 % ● Traces & impurities · 0.2 %

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

13 values across 3 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %
Pipe cooling strain, GOST 9941-81	461	–	17	–
Pipe hot strain, GOST 9940-81	441	–	17	–
Bar, GOST 5949-75	440	295	20	45

CONDITION · DIMENSION	RM N/mm ²	A5 %	KCU kJ/m ²
Sheet trick, GOST 7350-77	440	14	200

CONDITION · DIMENSION	RM N/mm ²	A5 %
Sheet thin, GOST 5582-75	530	17

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	7.6	204	–	17	–	710
100	–	200	–	–	462	–
200	–	197	10	–	–	–
300	–	189	10.6	–	–	–
400	–	176	10.8	–	–	–
500	–	164	11.3	–	–	–
600	–	140	11.5	–	–	–
700	–	124	11.6	–	–	–
800	–	119	11.6	–	–	–
900	–	109	12.2	–	–	–

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³

Technological properties

PROPERTY	VALUE	UNIT
Weldability	hard weldability.	
Temper brittleness	predisposed	

Designations across standards

14 designations · 1 documented as identical

Russia / CIS	5	France	1
15Ch25T	gost	Z10C24	afnor
15KH25T	gost		
15X25T	gost	Japan	1
X25T	gost	SUN446	jis
ЭИ439	gost		
		China	1
Poland	2	1Cr25Ti	gb
H25	pn		
H25T	pn	Sweden	1
		2322	ss
Europe	1		
X8CrTi25	This grade's own name din-en	Czechia	1
		17153	csn
United States	1		
446	aisi-sae		

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 ЭИ439

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	1.4746	Aug 20, 2026