

MATERIAL NUMBER 1.7362 · CLASS 1.7

12 CrMo 19 5

Material no. 1.7362

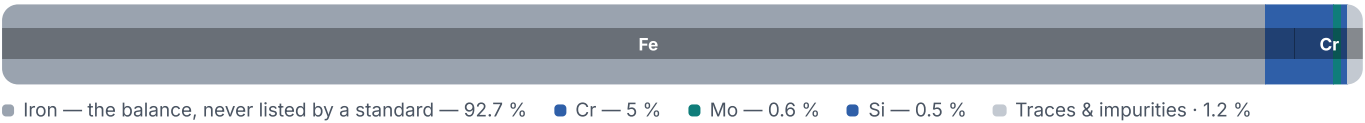
Chemical composition, mechanical and physical property values, and 48 standard designations from 12 regions.

DENSITY 7.85 g/cm³	OTHER DESIGNATIONS 48 in 12 regions	PROPERTY VALUES 18 on file
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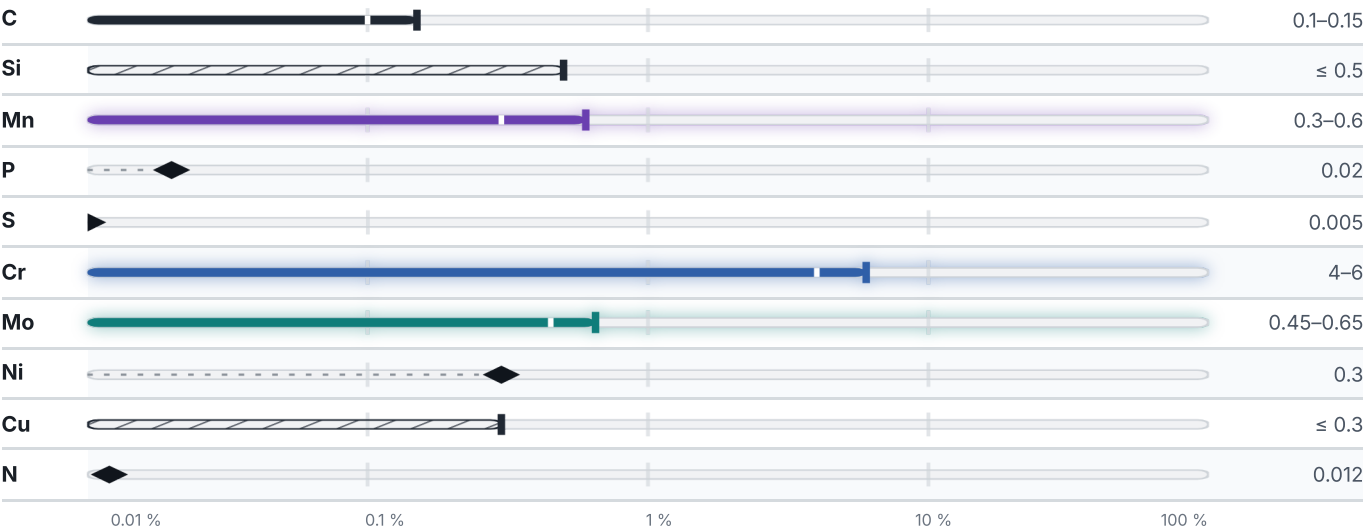
Chemical composition

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

20 values across 4 conditions

CONDITION · DIMENSION		REH N/mm ²	RM N/mm ²			
≤ 60		320	510–690			
60 – 150		–	480–660			
60 – 250		300	–			
150 – 250		–	450–630			
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²	HB
Pipe hot strain, GOST 550-75	392	216	22	50	1180	–
15Kh5M (15X5M) (hot-rolled, annealing) , GOST 20072-74	–	–	–	–	–	217
15Kh5M (15X5M) , Pipe GOST 550-75	–	–	–	–	–	170
ANNEALING 840 - 860°C,COOLING OVEN	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²	
Ø 90	390	215	22	50	1180	
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %			
Sheet trick, GOST 7350-77	470	235	18			

Physical properties

8 values

CONDITION · DIMENSION	RHO g/cm³	E GPa	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)	CP J/(kg·K)	RHO_EL nΩ·m
20	7.75	211	–	–	–	430
100	7.73	–	11.3	37	483	–
200	7.7	–	11.6	36	–	–
300	7.67	–	11.9	35	–	–
400	7.64	178	12.2	34	–	–
500	7.61	145	12.3	33	–	–
600	7.58	102	12.5	–	–	–
PROPERTY					VALUE	UNIT
Density					7.85	g/cm³
Transformation point Ac1					815	°C
Transformation point Ac3					848	°C
Transformation point Ar3					775	°C

PROPERTY	VALUE	UNIT
Transformation point Ar1	718	°C

Technological properties

PROPERTY	VALUE	UNIT
Weldability	hard weldability.	
Flake sensitivity	predisposed	
Temper brittleness	not predisposed	

Heat treatment

1 regimes

STEP	TEMPERATURE	MEDIUM
multiple operations, source states neither order nor alternation		
Quenching	1150–1180 °C	Water
Ageing	485–570 °C	Air

Designations across standards

48 designations · 11 documented as identical

United States19		Russia / CIS8	
K41245	This grade's own nameuns	15Ch5M	gost
K41545	This grade's own nameuns	15Kh5	gost
K42544	This grade's own nameuns	15KH5M	gost
S50100	This grade's own nameuns	15Kh5VF	gost
S50200	This grade's own nameuns	15X5M	gost
501	This grade's own nameaisi-sae	X5	gost
502	This grade's own nameaisi-sae	X5BΦ	gost
K41545	aisi-sae	X5M	gost
S50100	aisi-sae		
S50200	aisi-sae	Japan5	
T12005	aisi-sae	SFVAB5A	jis
T51605	aisi-sae	STBA25	jis
A 182 F 5	This grade's own nameastm	STC48	jis
A 182 Grade F5	astm	STFA25	jis
A 234 Grade WP5	astm	STPA25	jis
A 335 Grade P5	astm		
A199 grade T5	astm	Europe4	
A200 grade T5	astm	1.7362	din-en
A213 grade T5	astm	12 CrMo 19 5	This grade's own namedin-en
		X11CrMo5	This grade's own namedin-en
		X12CrMo5	This grade's own namedin-en

France	4	China	1
710CD5-05	afnor	10MoCr50	gb
Z10CD5-05	afnor		
Z15CD5-05	afnor	Czechia	1
Z20CD5	afnor	17102	csn
Italy	2	Poland	1
A16CrMo25-5KG	uni	H5M	pn
A16CrMo25-5KW	uni		
United Kingdom	1	Hungary	1
625	bs	12CrMo20-5	msz
		Romania	1
		10MoCr50	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 12 CrMo 19 5

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	1.7362	Aug 20, 2026