

MATERIAL NUMBER 1.1132 · CLASS 1.1

15KhL

Material no. 1.1132

also listed as C15E2C

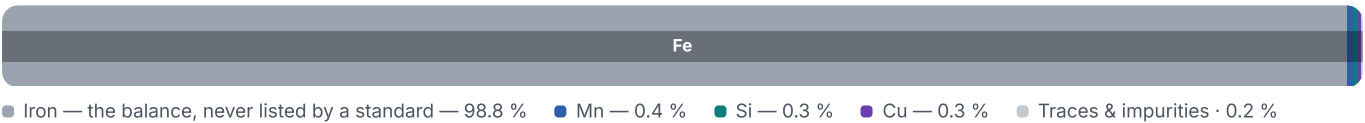
Chemical composition, mechanical and physical property values, and 31 standard designations from 5 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 31 in 5 regions	PROPERTY VALUES 16 on file
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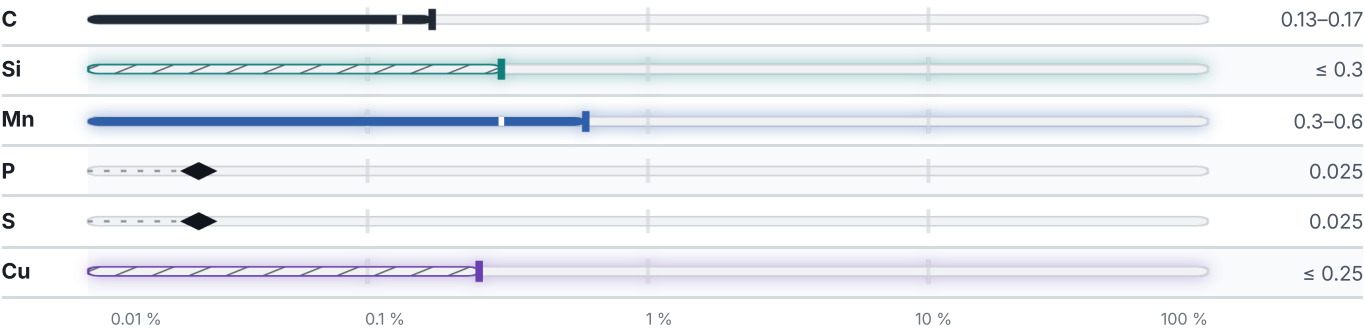
Chemical composition

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

Not enough recorded composition to predict a transformation temperature for this grade — missing: Ni, Cr, Mo.

Mechanical properties

22 values across 3 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	HB
Pipe, GOST 5005-82	510	430	8	–	–
Rolled stock cold-worked , GOST 1050-88	440	–	8	45	–
Rolled stock annealed , GOST 1050-88	340	–	23	55	–
Band annealed , GOST 2284-79	310–490	–	20	–	–
Band cold-worked , GOST 2284-79	440–780	–	–	–	–
Sheet GOST 4041-71	–	–	–	–	121
Bar GOST 10702-78	–	–	–	–	125
Rolled stock GOST 1050-88	–	–	–	–	197
Sheet trick GOST 1577-93	–	–	–	–	143
CONDITION · DIMENSION	RM N/mm ²		A5 %		
4 - 14	320–440		30		
NORMALIZING	RM N/mm ²	RE N/mm ²	A5 %	Z %	
to 80	370	225	27	55	

Physical properties

8 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	7.85	201	–	53	–	–
100	7.827	192	12.4	53	465	233
200	7.794	185	13.2	53	486	296
300	7.759	176	13.9	49	515	387
400	7.724	156	14.4	46	532	487
500	7.687	–	14.8	43	565	607
600	7.648	–	15.1	39	586	753
700	7.611	–	15.3	36	620	904
800	7.599	–	14.1	32	691	1092
900	7.584	–	13.2	30	708	1140

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³
Transformation point Ac1	735	°C
Transformation point Ac3	860	°C
Transformation point Ar3	840	°C
Transformation point Ar1	685	°C

Technological properties

PROPERTY	VALUE	UNIT
Weldability	without limitations.	
Flake sensitivity	not predisposed	
Temper brittleness	not predisposed	

Designations across standards

31 designations · 5 documented as identical

Russia / CIS		23	Europe		3
15	gost		15kp		din-en
15G	gost		C15E2C	This grade's own name	din-en
15GFD	gost		Cq 15	This grade's own name	din-en
15GL	gost				
15GNL	gost		United States		2
15GS	gost		G10150	This grade's own name	uns
15KHF	gost		1015	This grade's own name	aisi-sae
15KhFA	gost				
15KhGNM	gost		Japan		2
15KhL	gost		S15C		jis
15KhMFA	gost		S15CK		jis
15KhMFKR	gost				
15KHSND	gost		China		1
15kp	gost		15	This grade's own name	gb
15ps	gost				
15YuA	gost				
15ГC-Ш	gost				
15XCHД-Ш	gost				
A15Kh	gost				
CHS15	gost				
ShKh15-ShD	gost				
Sv-15GSTYuTsA	gost				
ЭП-439	gost				

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 15KHL

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

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ISSUED

Aug 20, 2026