

MATERIAL NUMBER 1.0961 · CLASS 1.0

HDT450F

Material no. 1.0961

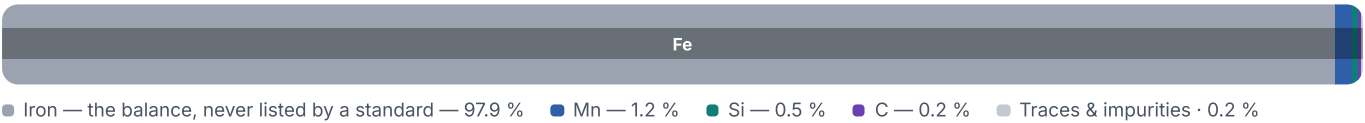
Chemical composition, mechanical and physical property values, and 39 standard designations from 15 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 39 in 15 regions	PROPERTY VALUES 16 on file
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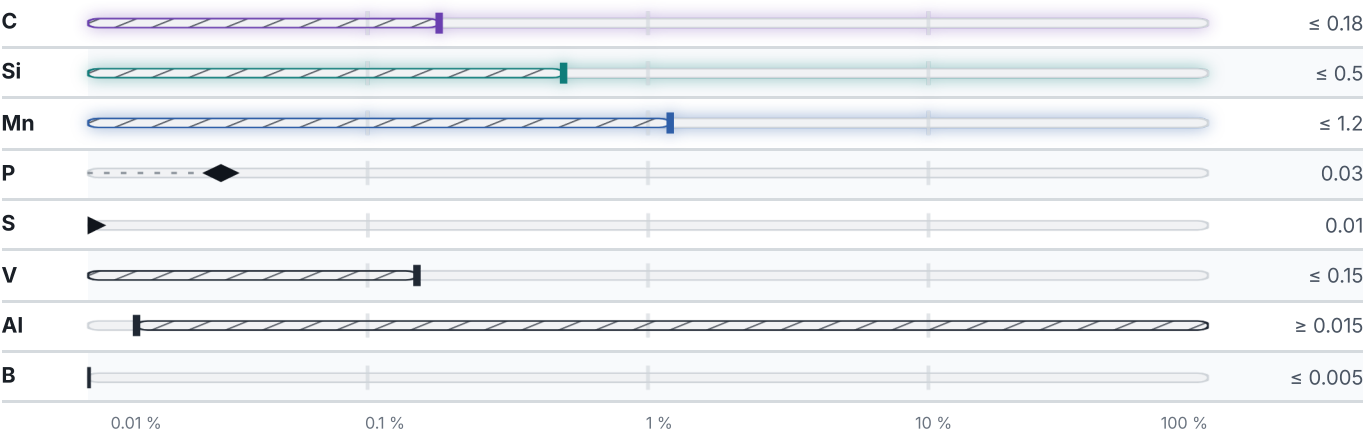
Chemical composition

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

8 values across 2 conditions

CONDITION · DIMENSION	RM N/mm ²	A5 %	HB
Band annealed	900	8	–
(annealing) , GOST 14959-79	–	–	269
(without heat treatment) , GOST 14959	–	–	302

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %
Rolled stock, GOST 14959-79	1270	1175	6	25

Physical properties

8 values

CONDITION · DIMENSION	RHO g/cm ³	E GPa	ALPHA 10 ⁻⁶ /K	LAMBDA W/(m·K)	CP J/(kg·K)
20	7.68	212	–	28	–
100	7.66	206	11.8	29	510
200	7.63	198	12.7	29	510
300	7.59	192	13.3	30	520
400	7.57	181	13.7	30	535
500	7.52	178	14.1	30	565
600	–	158	14.5	29	585
700	–	144	14.4	29	620
800	–	134	12.2	28	700

PROPERTY	VALUE	UNIT
Density	7.85	g/cm ³
Transformation point Ac1	770	°C
Transformation point Ac3	820	°C
Transformation point Ar3	770	°C
Transformation point Ar1	700	°C

Technological properties

PROPERTY	VALUE	UNIT
Weldability	is not used.	
Flake sensitivity	not predisposed	
Temper brittleness	not predisposed	

Designations across standards

39 designations · 2 documented as identical

United States		5	Russia / CIS		3
9260	aisi-sae		60S2		gost
9262	aisi-sae		60C2		gost
G92600	aisi-sae		60CfA		gost
Gr.9260H	aisi-sae				
H92600	aisi-sae		Australia / New Zealand		3
United Kingdom		5	9260	as-nzs	
250A53	bs		9260H	as-nzs	
250A61	bs		XK9258S	as-nzs	
251A58	bs		Japan		2
251A60	bs		SUP6	jis	
251H60	bs		SUP7	jis	
Spain		5	China		2
60Si7	une		60Si2Mn	gb	
60SiCr8	une		60Si2MnA	gb	
F.1441	une		Italy		2
F.1442	une		60Si7	uni	
F.1442-60SiCr8	une		60SiCr8	uni	
Europe		4	Czechia		1
1.0961	din-en		13270	csn	
60SiCr7	din-en		Poland		1
HDT450F This grade's own name	din-en		60S2	pn	
S340MGC This grade's own name	din-en		Hungary		1
France		3	61Si7	msz	
60S7	afnor		Bulgaria		1
60SC7	afnor		60S2	bds	
61SC7	afnor		Belgium		1
			60Si7	nbn	

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 HDT450F

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

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GRADE SEARCH

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ISSUED

Aug 20, 2026