

MATERIAL NUMBER 1.3243 · CLASS 1.3

EM35

Material no. 1.3243

also listed as HS6-5-2-5

Chemical composition, mechanical and physical property values, and 49 standard designations from 19 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
8.1 g/cm ³	49 in 19 regions	15 on file

Chemical composition

Mass fraction in %

What this alloy is



● Iron — the balance, never listed by a standard — 76.1 % ● W — 6.3 % ● Mo — 5 % ● Co — 4.8 % ● Traces & impurities · 7.9 %

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.

Mechanical properties

8 values across 4 conditions

CONDITION · DIMENSION					HB
Annealed					269
SOFT ANNEALED					HB
Soft annealed					269
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
As-delivered state	850	510	12	14	180
CONDITION · DIMENSION					HB
(annealing) , GOST 19265-73					269

Physical properties

5 values

CONDITION · DIMENSION	RHO g/cm ³	E GPa	LAMBDA W/(m·K)	RHO_EL nΩ·m
20	8.2	220	–	458
100	–	–	27	–
200	–	–	28	–
300	–	–	29	–
400	–	–	30	–
500	–	–	32	–
600	–	–	36	–
700	–	–	34	–
900	–	–	29	–
PROPERTY			VALUE	UNIT
Density			8.1	g/cm ³
Transformation point Ac1			840	°C
Transformation point Ac3			875	°C
Transformation point Ar3			805	°C
Transformation point Ar1			765	°C

Heat treatment

4 regimes

STEP	TEMPERATURE	MEDIUM
source joins the operations with + / procedural order		
Preheating	800–900 °C	—
Quenching	1190–1210 °C	—
Tempering	550 °C	—
Annealing	Temperature not stated	—
source joins the operations with + / procedural order		
Quenching	Temperature not stated	—
Tempering	Temperature not stated	—
Annealing	Temperature not stated	—

Designations across standards

49 designations · 4 documented as identical

France	12	Russia / CIS	4
06-05-05-04-02	afnor	R6M5K5	gost
6-5-2-5	afnor	R6M5K5-MP	gost
HS6-5-2-5	afnor	ДИ101-МП	gost
HS6-5-2-5HC	afnor	P6M5K5	gost
HS6-5-2HC	afnor		
Z85WDKCV	afnor	Europe	3
Z85WDKCV06	afnor	1.3243	din-en
Z85WDKCV06-05-04-02	afnor	HS6-5-2-5 This grade's own name	din-en
Z85WDKCV06-05-04-02-05	afnor	S 6-5-2-5 This grade's own name	din-en
Z85WDKCV06-05-05-04-02	afnor		
Z90WDKCV	afnor	United Kingdom	2
Z90WDKCV06-05-05-04-02	afnor	3243	bs
		BM35	bs
United States	6	China	2
T11335	uns	N029	gb
T11341	uns	W6Mo5Cr4V2Co5	gb
M35	aisi-sae		
M41	aisi-sae	Sweden	2
SIL 10 This grade's own name	aisi-sae	2723	ss
T11341	aisi-sae	2733	ss
Spain	5	Bulgaria	2
6-5-2-5	une	HS6-5-2-5	bds
EM35	une	R6M5K5	bds
F.5607	une		
F.5613	une		
HS6-5-2-5	une		

Austria	2	Slovakia	1
BOHLERS705	onorm	19 852	stn
S705	onorm		
International	1	Serbia	1
HS6-5-2-5	iso	Č.9780	srps
Japan	1	Poland	1
SKH55	jis	SK5M	pn
Italy	1	Hungary	1
HS6-5-2-5	uni	R8	msz
Czechia	1	South Korea	1
19852	csn	SKH55	This grade's own name ks

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 EM35
Quotation, availability, mill certificate or a technical question — directly on the material page.

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DATASHEET ONLINE	GRADE SEARCH	MATERIAL NO.	ISSUED
View the material page	Search all grades	1.3243	Aug 20, 2026