

MATERIAL NUMBER 1.0335 · CLASS 1.0

SPHE-AK

Material no. 1.0335

also listed as DD 13

Chemical composition, mechanical and physical property values, and 20 standard designations from 12 regions.

DENSITY 7.85 g/cm ³	OTHER DESIGNATIONS 20 in 12 regions	PROPERTY VALUES 5 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: Si, Ni, Cr, Mo.

Mechanical properties

15 values across 4 conditions

CONDITION · DIMENSION	REH N/mm ²	A80 % · Lo = 80 mm	A % · Lo = 5,65 √So
1–2	170–330	–	–

CONDITION · DIMENSION	REH N/mm ²	A80 % · Lo = 80 mm	A % · Lo = 5,65 √So
1 – 1.5	–	27	–
1.5 – 2	–	28	–
2 – 11	170–310	–	–
2 – 3	–	29	–
3 – 11	–	–	33

CONDITION · DIMENSION	RM N/mm ²	A %
Plate/Sheet	270	31–41

CONDITION · DIMENSION	RM N/mm ²	A %
Plate/Sheet Hot-rolled	270	31–41

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	KCU kJ/m ²
Blank for pipe	638	373	16	40	390

Physical properties			1 values
PROPERTY	VALUE	UNIT	
Density	7.85	g/cm ³	

Designations across standards			20 designations · 5 documented as identical
United States	4	United Kingdom	1
G10060 This grade's own name	uns	HR1	bs
1006 This grade's own name	aisi-sae	France	1
A622DQ	aisi-sae	3C	afnor
DS	aisi-sae	Spain	1
Europe	3	AP13	une
DD 13 This grade's own name	din-en	International	1
DS	din-en	HR4	iso
StW 24 This grade's own name	din-en	Russia / CIS	1
Czechia	3	08kp	gost
11304	csn	Italy	1
11305	csn	FeP13	uni
11330	csn		
Japan	2		
SPHE	jis		
SPHE-AK	jis		

Australia / New Zealand		1	South Korea		1
1006	as-nzs		SPHE	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 SPHE-AK

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	1.0335	Aug 20, 2026