



ALPHA 2 (ESR)

Forged High Speed Steel

Chemical composition

	C	Cr	Mo	W	Co	V
ALPHA2	0.9	4.2	5.0	6.5	-	1.9
ALPHA1	0.8	4.0	8.5	1.7	-	1.2
ALPHA3	1.2	4.1	5.0	6.2	-	3.0
ALPHA4	1.3	4.2	4.5	5.5	-	4.0
ALPHA7	1.0	4.0	8.6	1.8	-	1.9

Standards; AISI M2. Werkstoff 1.3343. JIS SKH51

Properties

	Hardness HRC
ALPHA2	≤ 64
ALPHA1	≤ 65
ALPHA3	≤ 66
ALPHA4	≤ 66
ALPHA7	≤ 66

	Density g/cm ³	Young's modulus GPa
ALPHA2	8.1	225

Comparative properties

	Wear resistance	Toughness	Grindability
ALPHA2	██████	██████	██████
ALPHA1	██████	██████	██████
ALPHA3	██████	██████	██████
ALPHA4	██████	██████	██████
ALPHA7	██████	██████	██████

Description

Conventional medium alloyed high speed steel manufactured according to Union Electric Åkers specification.

ALPHA2 is also available further refined by ESR (Electro Slag Remelting).

ALPHA2 is supplied in through hardened condition.

Applications

Work rolls in 20-high mills for cold rolling of ferrous and non ferrous products.

Smaller diameter 2-high and 4-high narrow strip mill work rolls for cold rolling of ferrous and non ferrous products.

Features & Benefits

- ALPHA2 offers a good compromise between toughness and hardness.
- Good grindability.
- High thermal shock resistance.