



# ALPHA 7 (ESR)

*Forged High Speed Steel*

## Chemical composition

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

Standards; AISI M7. Werkstoff 1.3348. JIS SKH58

## Description

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

ALPHA7 is also available further refined by ESR (Electro Slag Remelting).

ALPHA7 is supplied in through hardened condition.

## Features & Benefits

- High hardness.
- Excellent surface characteristics.
- ALPHA7 is recommended for less severe applications.

## Properties

	Hardness HRC
<b>ALPHA7</b>	<b>≤ 66</b>
ALPHA1	≤ 65
ALPHA2	≤ 64
ALPHA3	≤ 66
ALPHA4	≤ 66

	Density g/cm <sup>3</sup>	Young's modulus GPa
<b>ALPHA7</b>	<b>8.0</b>	<b>225</b>

## Applications

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

## Comparative properties

	Wear resistance	Toughness	Grindability
<b>ALPHA7</b>	————	————	————
ALPHA1	————	————	————
ALPHA2	————	————	————
ALPHA3	————	————	————
ALPHA4	————	————	————

**Union Electric Åkers**  
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