



銷售部:

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郵箱: vertrieb@stahl-groeditz.de • 公司網址: <http://www.stahl-groeditz.de>**W.1.2344 VICTORY ESR**

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電渣重熔 Electro-slag-remelting (ESR)**主要特性**

- 材質均勻, 優越的切削加工性和拋光性
- 高韌性及高塑性
- 高低溫下的高耐磨性
- 出色的整體硬化性
- 良好的高溫強度及耐熱疲勞性
- 熱處理時極低的變形性
- 與傳統鋼材相比具有更好的等向性, 各方向都有出色的韌性和塑性

主要應用

- 壓鑄模(模仁, 固定件, 上模, 噴嘴, 氮化頂針, 氮化套筒)
- 擠壓模(模仁, 支承件, 襯套, 阻流塊)
- 熱壓模具 (鋁, 鎂, 銅合金)
- 塑膠模具 (注塑模具)
- 部件, 如冷剪切, 飛邊, 熱剪, 預緊環, 耐磨部件

化學成分%

C	Si	Mn	P	S	Cr	Mo	V
0.38 – 0.42	0.8 – 1.2	0.3 – 0.5	≤ 0.015	≤ 0.002	4.8 – 5.5	1.2 – 1.5	0.9 – 1.1

物理性質

熱膨脹系數 [10 ⁻⁶ m/(m x K)]	20-100 °C	20-200 °C	20-300 °C	20-400 °C	20-500 °C	20-600 °C	20-700 °C
	10.9	11.9	12.3	12.7	13.0	13.3	13.5
熱傳導性 [W/(m x K)]	20° C		350° C		700° C		
	25.2		27.0		30.3		

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熱處理

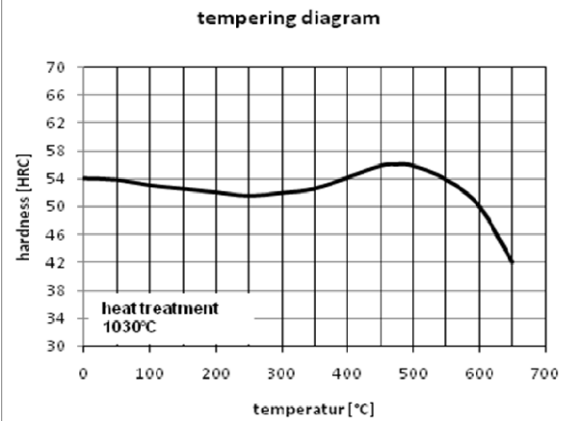
鍛造	軟化退火	淬硬	回火
1050 – 850 °C	820 – 840 °C	1010 – 1050 °C	520 – 700 °C

回火圖

HRC

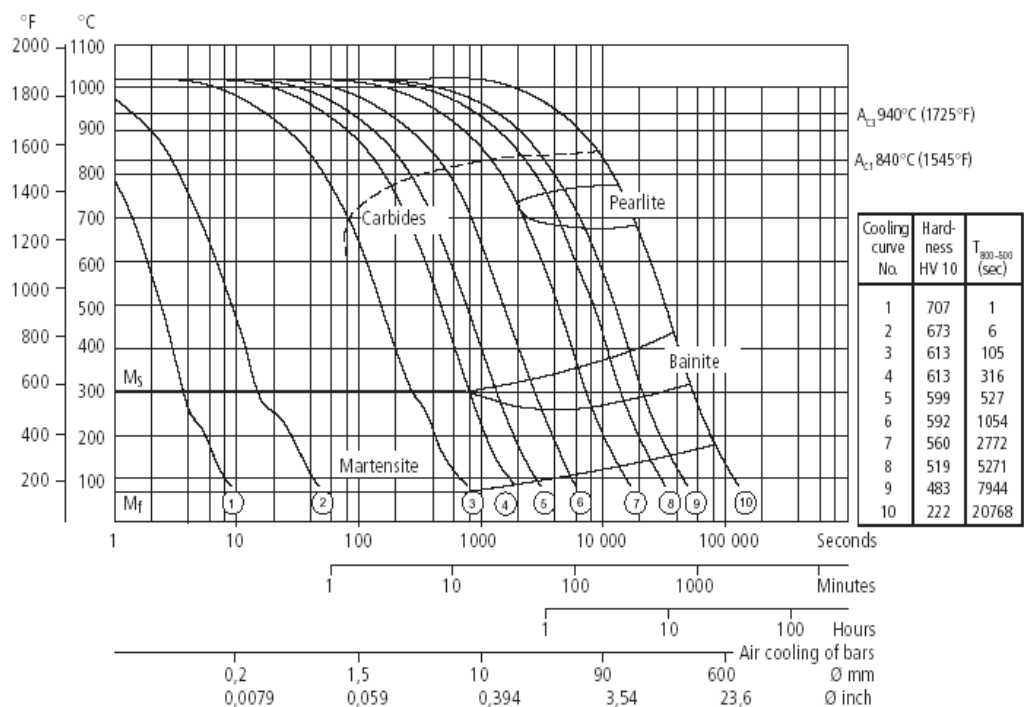
試樣直徑25 x 50 mm長

油淬溫度1030 °C



CCT圖

Austenitizing temperature 1020°C (1870°F). Holding time 30 minutes.



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出廠狀態

軟性退火，硬度最大至229HB
或者 調質到客戶要求

運用狀態

30 - 56 HRC

衝擊強度

無缺口試樣 10x7x55 [mm] 調質到44-46HRC
VDG M82 Ed.02/1993 400 J/cm²

或者按照
或者



按客戶要求

超聲檢驗

ASTM A388 - FBH max. 3 mm (1/8 inch)

或者

SEP 1921 – test group 3 – class E , e

或者

按客戶要求

純淨度

按照ASTM E45方法A，A硫化物 ≤ 0.5，B氧化物、C硅酸鹽和D球狀氧化物各≤ 1

或者

DIN 50602– K1 ≤ 10

或者

按客戶要求

鋼材組織

細均勻退火組織

參考下一頁

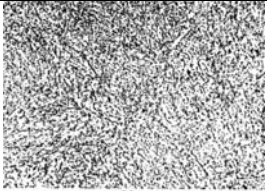
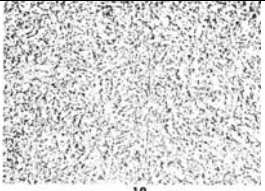
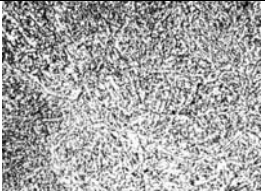
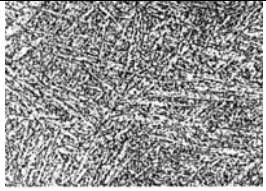
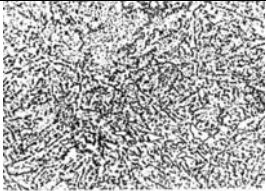
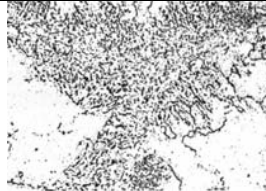
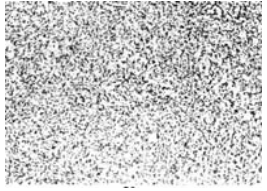
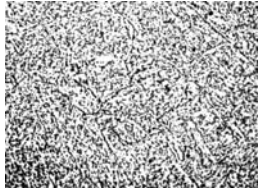
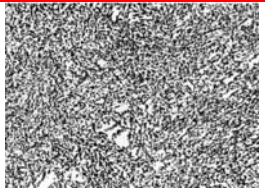
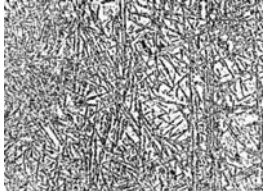
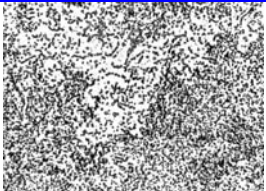
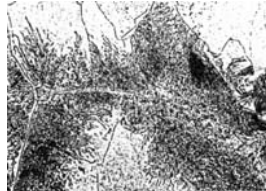
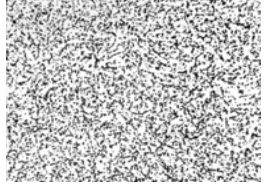
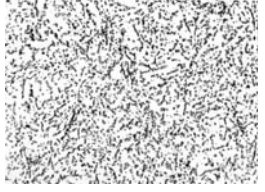


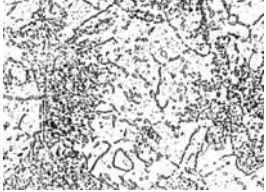
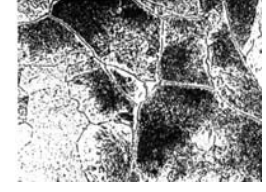
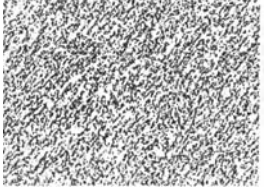






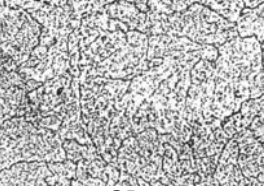
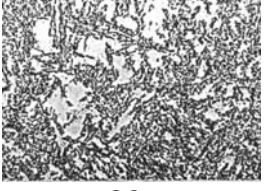



尺寸規格

圓鋼直徑至600 mm

模塊厚度至400 mm

或者 按客戶要求

退火熱作工具鋼顯微組織對照圖

	GA	GB	GC	GD	GE	GF
1	 GA1	 GB1	 GC1	 GD1	 GE1	 GF1
2	 GA2	 GB2	 GC2	 GD2	 GE2	 GF2
3	 GA3	 GB3	 GC3	 GD3	 GE3	 GF3
4	 GA4	 GB4	 GC4	 GD4	 GE4	 GF4
5	 GA5	 GB5	 GC5	 GD5	 GE5	 GF5
	EFS退火/ EFS annealed		ESU至400 mm / ESR up to 400 mm		ESU至250 mm / ESR up to 250 mm	