

2367 ESR



General Catalog of **TOOL STEELS**

NADCA 1.2367 ESR+MOD

电渣重熔 Electro-slag-remelting (ESR)

主要特征

- 材质均匀, 优越的切削加工性和抛光性
- 高韧性及高塑性
- 高低温下的高耐磨性
- 出色的整体硬化性
- 良好的高温强度及耐热疲劳性
- 热处理时极低的变形性
- 与传统钢材相比具有更好的等向性, 各方向都有出色的韧性和塑性

主要应用

- 压铸模(模仁, 固定件, 上模, 喷嘴, 氮化顶针, 氮化套筒)
- 挤压模(模仁, 支承件, 衬套, 阻流块)
- 热压模具 (铝, 镁, 铜合金)
- 塑料模具 (注塑模具)
- 部件, 如冷剪切, 飞边, 热剪, 预紧环, 耐磨部件

化学成分%

C	Si	Mn	P	S	Cr	Mo	V
0.32 – 0.42	0.2 – 0.6	0.2 – 0.6	≤ 0.015	≤ 0.002	4.6 – 5.5	2.2 – 2.8	0.5 – 1.1

物理性质

热膨胀系数 [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
热传导性 [W/(m x K)]	20° C		350° C		700° C		
	25.2		27.0		30.3		

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热处理

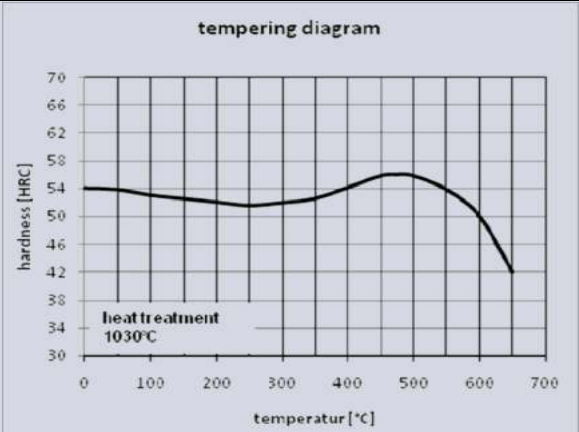
锻造	软化退火	淬硬	回火
1050 – 850 °C	820 – 840 °C	1010 – 1050 °C	520 – 700 °C

回火图

HRC

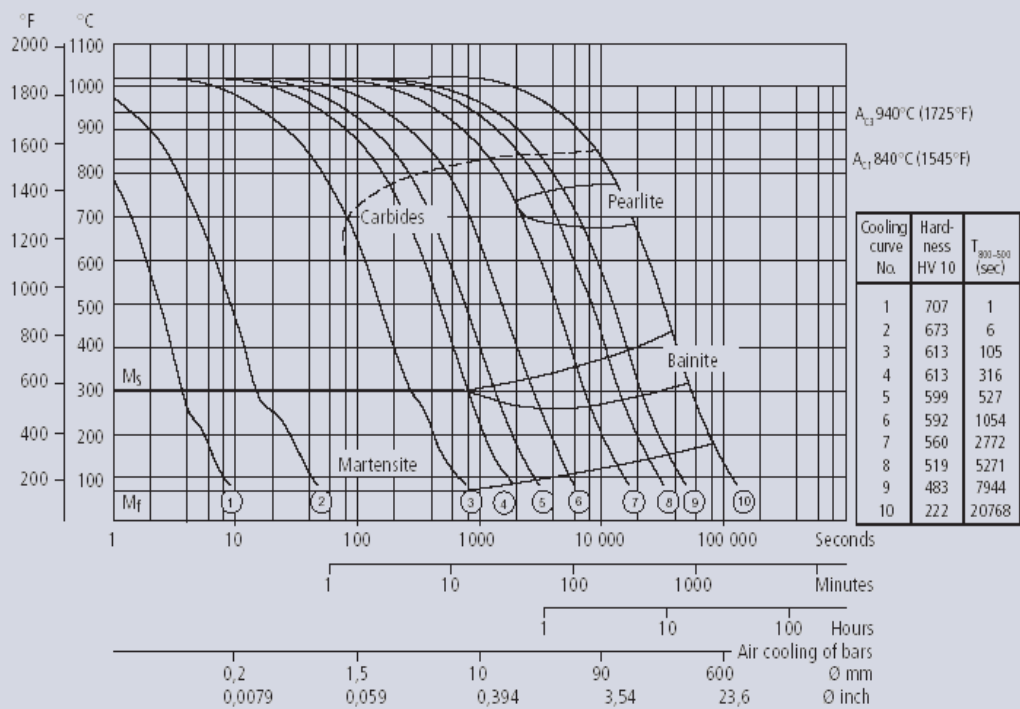
试样直径25 x 50 mm长

油淬温度1030 °C



CCT图

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



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出厂状态

软性退火，硬度最大至229HB
或者 调质到客户要求

运用状态

30 - 55 HRC

冲击强度

无缺口试样 10x7x55 [mm] 调质到44-46HRC
VDG M82 Ed.02/1993 451 J/cm²

或者按照
或者



按客户要求

超声检验

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

或者

SEP 1921 – test group 3 – class E , e

或者

按客户要求

纯净度

按照ASTM E45方法A, A硫化物 ≤ 0.5 , B氧化物、C硅酸盐和D球状氧化物各 ≤ 1

或者

DIN 50602– K1 ≤ 10

或者

按客户要求

钢材组织

细均匀退火组织

参考下一页

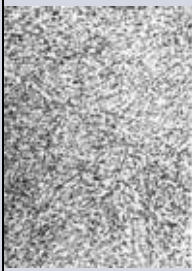

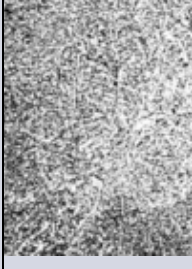
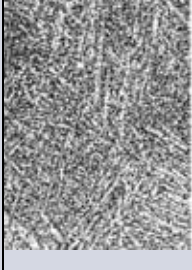
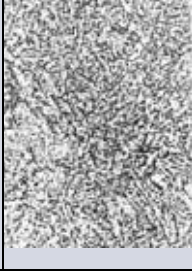
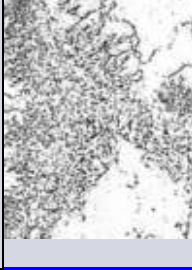
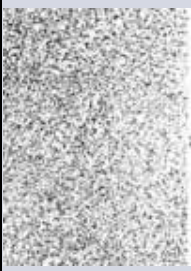
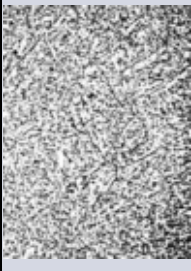
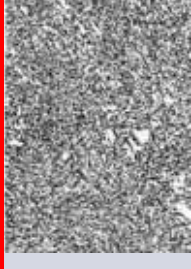
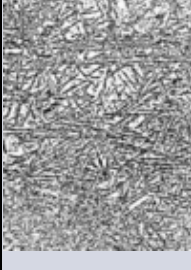
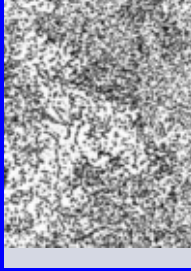

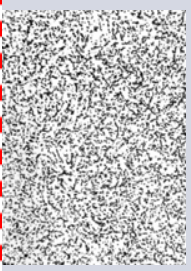
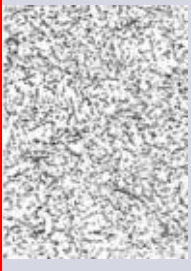

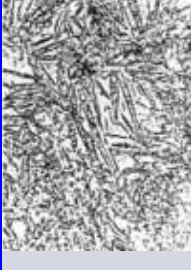

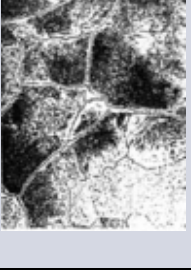
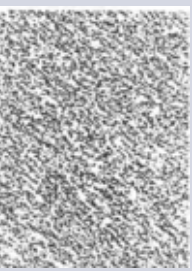






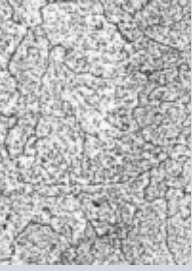
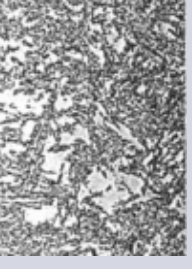


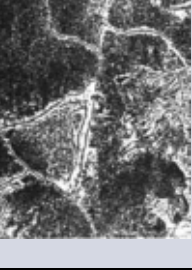
尺寸规格

圆钢直径至600 mm

模块厚度至400 mm

或者 按客户要求

退火热作工具钢显微组织对照图

	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		



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