钜研特殊钢

2367 ESR+MOD

产品资料

苏州钜研精密模具钢材有限公司
Suzhou PROMAX Precision mould steel co., LTD
http://www.promaxs.com

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	13.5

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

NADCA 1.2367 ESR+MOD

热处理

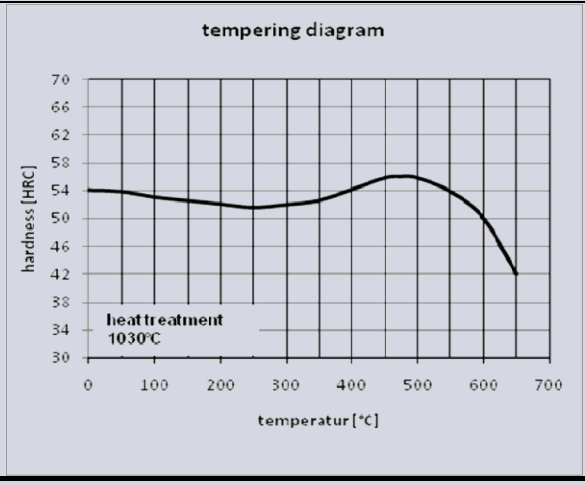
锻造	软化退火	淬硬	回火
1050 – 850 °C	820 – 840 °C	1010 – 1050 °C	520 – 700 °C

回火图

HRC

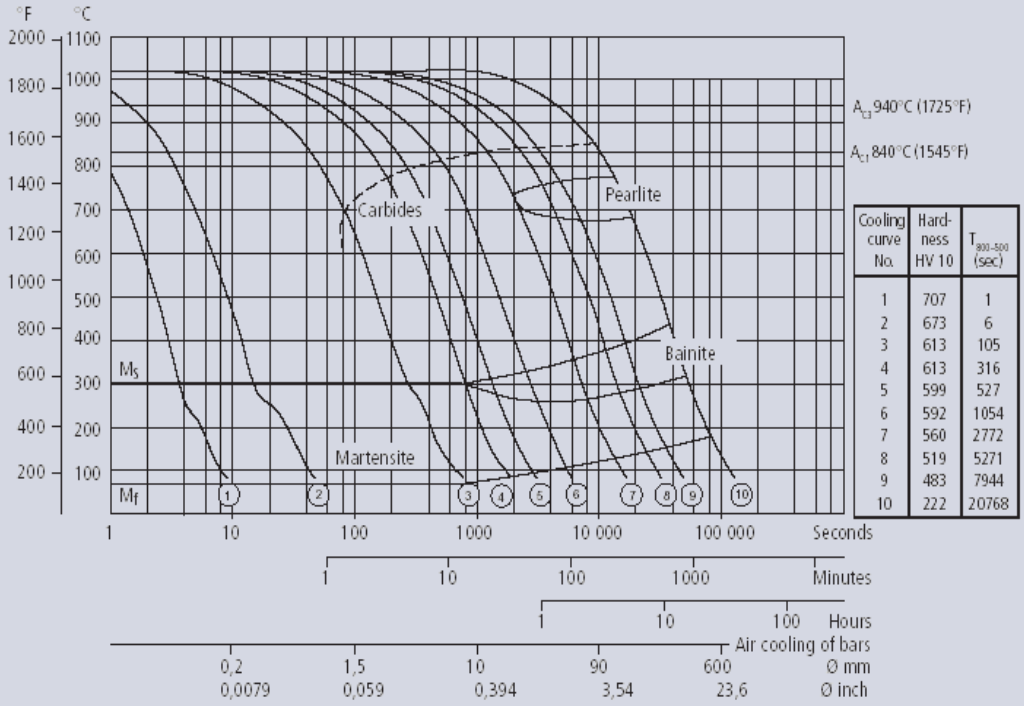
试样直径25 x 50 mm长

油淬温度1030 °C



CCT图

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



Cooling curve No.	Hardness HV 10	$T_{800-500}$ (sec)
1	707	1
2	673	6
3	613	105
4	613	316
5	599	527
6	592	1054
7	560	2772
8	519	5271
9	483	7944
10	222	20768

NADCA 1.2367 ESR+MOD

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 NADCA
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

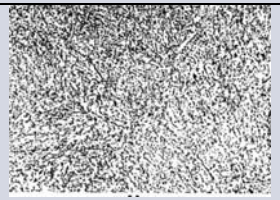
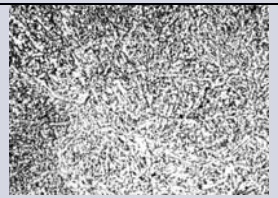
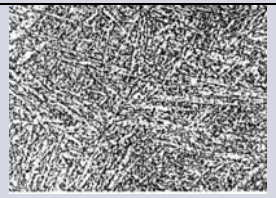
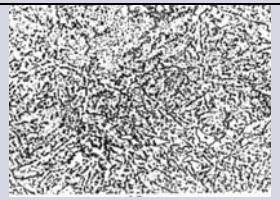
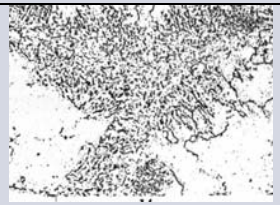
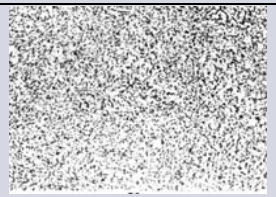
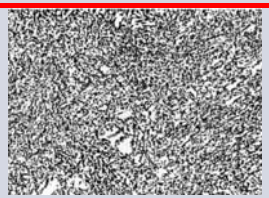
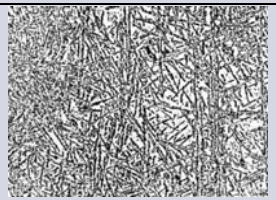
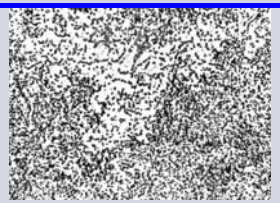
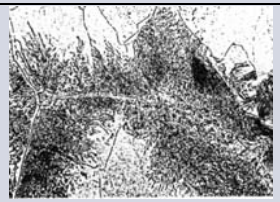
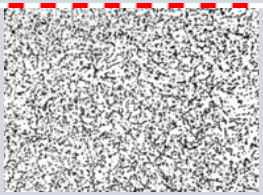
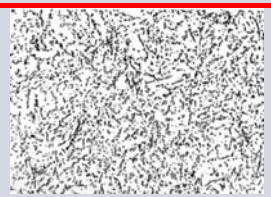
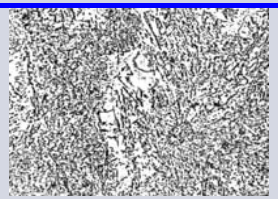
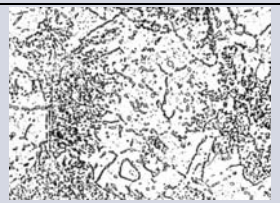
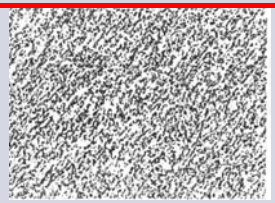
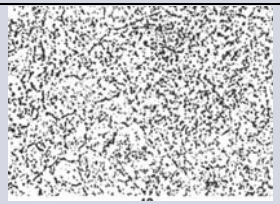
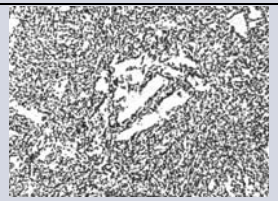
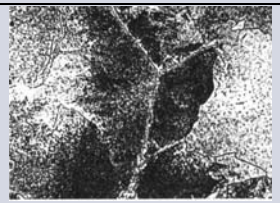
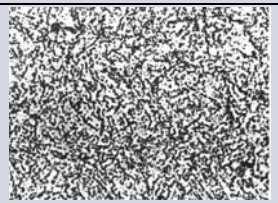
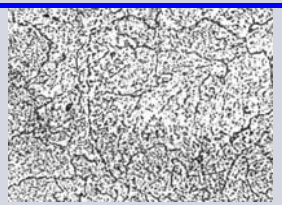
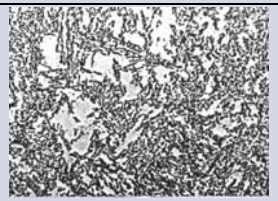
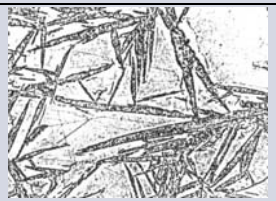
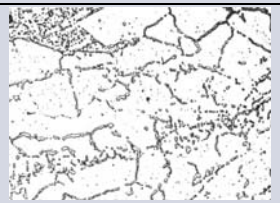
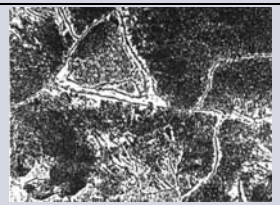
钢材组织

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

钜研特殊钢
www.promaxs.com

苏州钜研精密模具钢材有限公司
Suzhou PROMAX Precision mould steel co., LTD

●注意

对本资料记载内容的误解或不当判断所导致的损害，
恕不负其责。
本资料所记载信息今后更改时不特作预告，有关最新
信息请向有关部门问讯。
本资料记载内容禁止擅自转载和复制。

http://www.promaxs.com