



EDELSTAHL GMBH J.P. SCHUMACHER

SPECIAL STEEL * BARS * BLOCKS * FORGINGS



W.1.2738 (similar to AISI P20 + Ni)

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Conventional melting (EF+LF+VD)

GENERAL:

- uniform hardness across the cross-section
- very good polishability
- good machinability
- hardenable and temperable plastic mould steel
- nitridable
- suitable for chrome plating

APPLICATIONS:

Die steel for plastic moulds with a thickness of about 400 mm plus, if uniform hardness, elevated toughness and polishability is required in the contour as well. Moulds for TV housings and rear walls, copier housings; shock-absorber moulds; moulds for dashboards and large outside body parts; waste bin moulds; pressure casting frames

CHEMICAL ANALYSIS %:

C	Si	Mn	P	S	Cr	Mo	Ni
0,35-0,45	0,20-0,40	1,30-1,60	≤ 0,035	≤ 0,005	1,80-2,10	0,15-0,25	0,90-1,20

PHYSICAL PROPERTIES:

	20-100° Celsius	20-200° Celsius	20-300° Celsius	20-400° Celsius	20-500° Celsius	20-600° Celsius	20-700° Celsius
Coefficient of thermal expansion [10 ⁻⁶ m/(m x K)]	11.1	12.9	13.4	13.8	14.2	14.6	14.9
Thermal conductivity [W/(m x K)]	35.7	33.2	31.9				

ULTRASONIC:

ASTM A388 - FBH max. 3 mm (1/8 inch) or
SEP 1921 – test group 3 – class E , e or
acc. to your request

CLEANLINESS:

ASTM E45- Method A with type A ≤ 1,5 ,
B; C and D each ≤ 2 or
DIN 50602– K4 ≤ 20 or
acc. to your request

DELIVERY CONDITION:

hardened and double tempered with a hardness of 280 - 325 HB (950 - 1100 N/mm²)

SERVICE STRENGTH:

280 – 325 HB

STRUCTURE:

fine bainitic structure



WARE HOUSE: PLOT NO 1442, ROAD NO 16,
 KALAMBOLI WAREHOUSING COMPLEX, KALAMBOLI, NAVI MUMBAI 410218.
 TEL: +91-22-2742 3998, 5590 3711 FAX: +91-22 5590 3712 EMAIL: ANAND_STEEL@VSNL.COM



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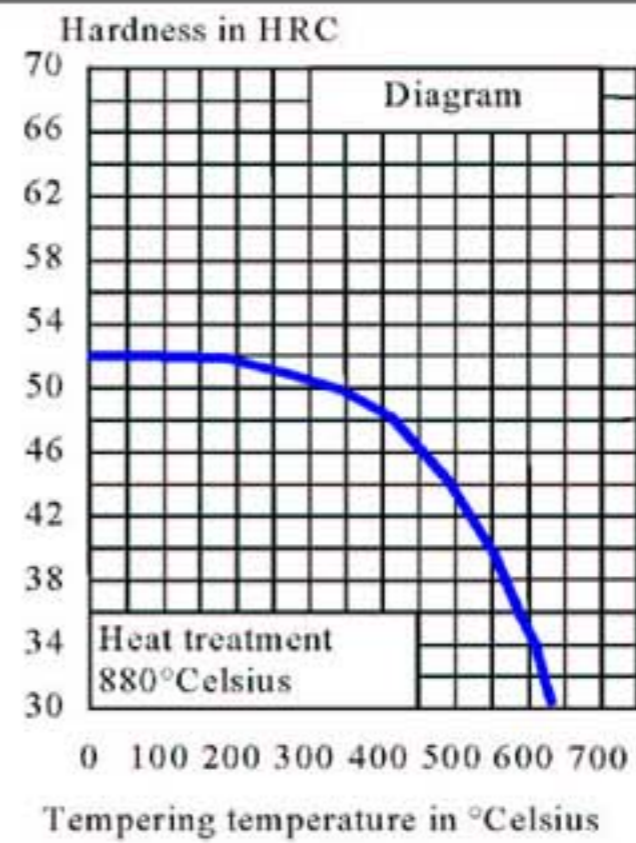
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HEAT TREATMENT:

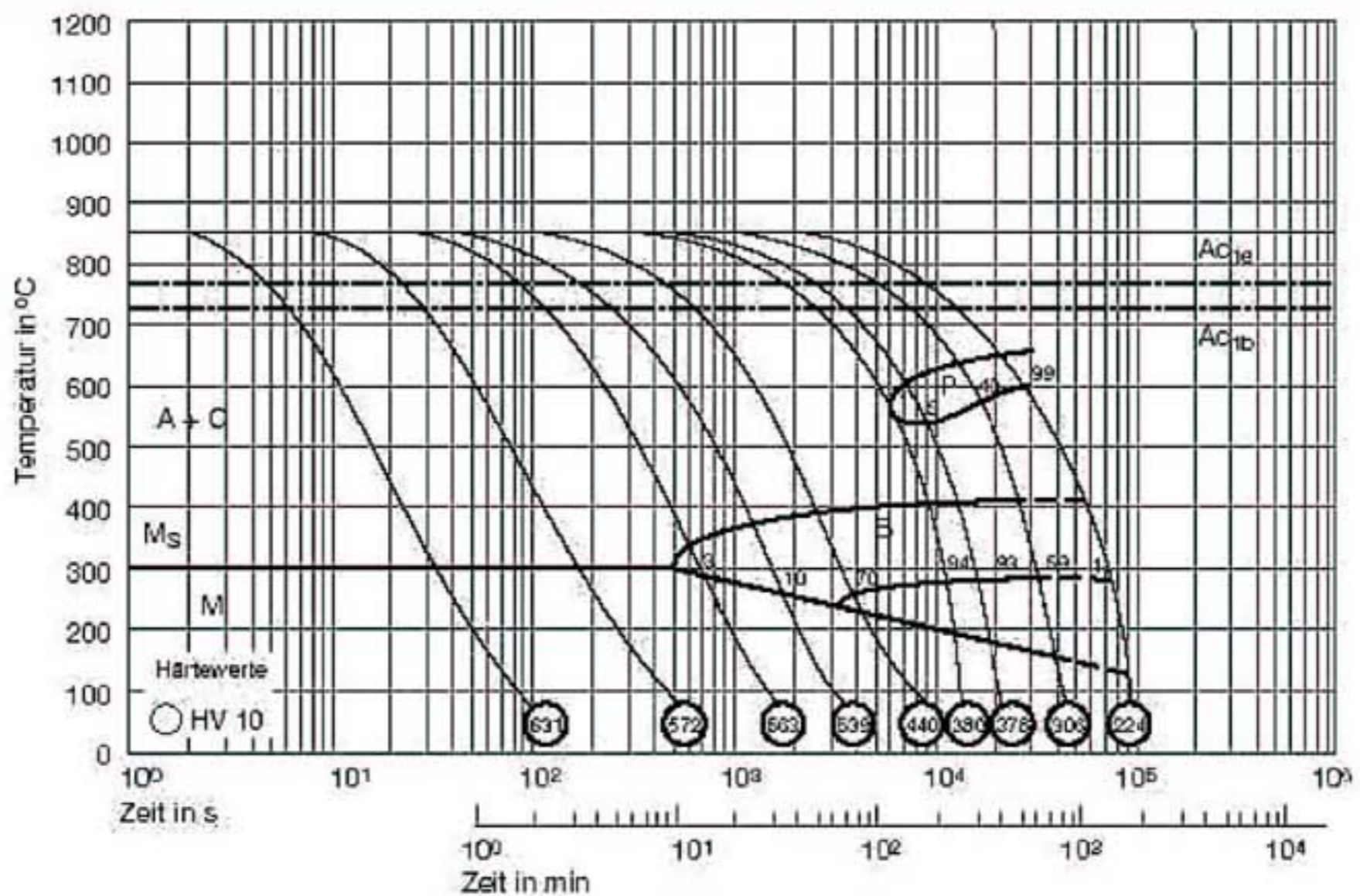
Hot forming	Soft annealing	Hardening	Tempering
1100 - 900° Celsius	710 - 740° Celsius	850 - 880° Celsius	600 - 680° Celsius #

TEMPERING DIAGRAM:

values in HRC
 tested on samples dia. 25 x 50 mm long
 hardened at 880 °C in oil



CCT GRAPH:



DELIVERY SIZES:

Rounds – up to 1300 mm
 Blocks – up to 1000 mm thickness