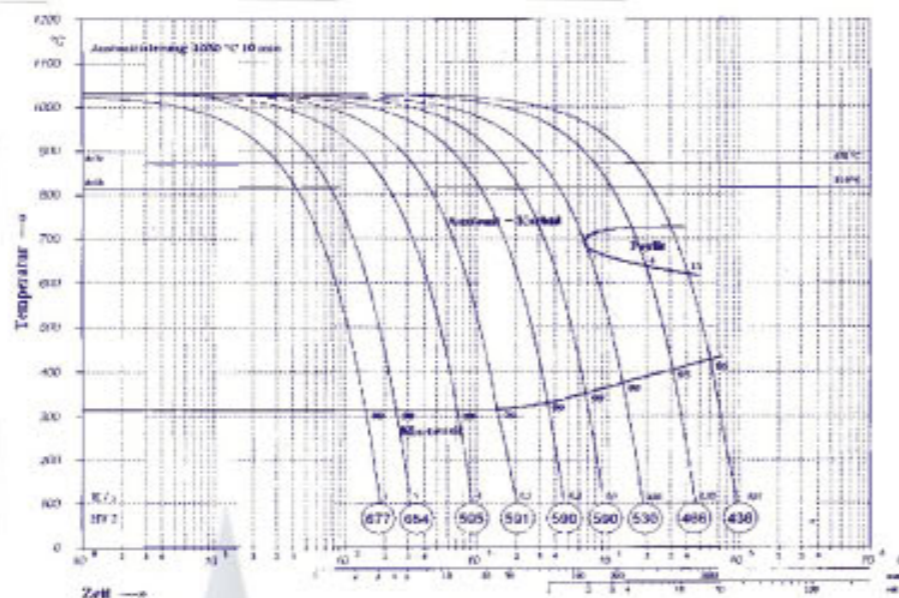


CCT GRAPH :



DELIVERY CONDITION

EFS annealed fine uniform annealed structure with a hardness of a maximum of 220 HB

SERVICE HARDNESS

30 – 56 HRC

IMPACT STRENGTH :

Unnotched test sample 10x7x55 [mm] hardened and tempered at 44-46HRC

VDG M82 Ed. 02/1993

400 J/cm² or test sample hardened and tempered at 44-46HRC: Charpy V min. 20J

or according to **NADCA** or acc. to your request

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 ≤ 0,5; B, C and D each ≤ 1 or

DIN 50602– K1 ≤ 10 or acc. to your request

DELIVERY SIZES :

diameter – up to 600 mm or

thickness - up to 400 mm or acc. to your request

REMARK :

The best mechanical properties will be reached by using material which has been produced close to the requested final dimension.

The details and values in this data sheet are typical values, no guarantee promises. Changes of the material, the qualities and/or performance data we reserve for us.

Schmiedewerke Gröditz
GmbH . since 1779 . High-Grade Steel



ANAND GROUP OF COMPANIES
ANAND MOULD STEELS PVT. LTD.
ANAND STEELS & ALLOYS

UNIT 1 :
Plot No. 1442, Road No. 16,
Kalamboli Warehousing Complex,
Kalamboli, Navi Mumbai - 410 218.
Tel.: 91-22-6513 3711 / 1
Fax : 91-22-2742 3998
email : ashish@anandsteels.com
Website: www.anandsteels.com

UNIT 2 :
Plot No. 9, H. No. 5-5-35/233,
Shaktipuram, Prashanthinagar,
Kukatpally (IE),
Hyderabad - 500 072.
Tel.: 040-23078799 / 4927
Email : south@anandsteels.com
Website: www.anandsteels.com

UNIT 3 :
Shed No. 6, Subhadra Estate,
Samaipur Road, Sector - 58,
Faridabad 121004. (HR.)
Tel.: 0129 - 4052872
Email : north@anandsteels.com
Website: www.anandsteels.com

UNIT 4 :
Office 6, Nuttan Bharat Society,
Alkapuri, Vadodara - 390 007.
Mobile : +91 - 9879171221
Email : gujarat@anandsteels.com
Website: www.anandsteels.com

EX1 VICTORY ESR

Electro-slag-remelting (ESR)

• ANAND MOULD STEELS PVT. LTD. • ANAND MOULD STEELS PVT. LTD. • ANAND MOULD STEELS PVT. LTD.



GENERAL:

- Uniform and high level of machinability & polishability
- Highest level of toughness and ductility in all directions
- High resistance to thermal shocks
- Good resistance to abrasion at both low & high temperatures
- Excellent through-hardening properties
- Good high-temperature strength and resistance to thermal fatigue
- Very limited distortion during hardening
- Isotropic properties compared to Conventionally melted steel grades
- Nitridable

APPLICATIONS :

- Pressure casting tools for light-alloy processing - Dies and die inserts for forging presses in steel forming - Extrusion tools - Die holders and internal bushes in heavy metal alloys
- From pressing dies in heavy and light metal processing - Moulds for plastics (injection moulds)

CHEMICAL ANALYSIS : %

C	Si	Mn	P	S	Cr	Mo	V
0,34 – 0,38	≤ 0,50	≤ 0,50	≤ 0,015	≤ 0,001	4,80 – 5,20	1,80 – 2,20	0,40 – 0,60

PHYSICAL PROPERTIES :

Coefficient of thermal expansion	20-100 °C	20-200 °C	20-300 °C	20-400 °C	20-500 °C	20-600 °C	20-700 °C
[10 ⁻⁶ m(m x K)]	11.9	12.4	12.6	12.7	13.0	13.1	13.4
Thermal conductivity	100 °C		350 °C		700 °C		
[W/(m x K)]	29.7		31.0		33.2		

HEAT TREATMENT :

Hot forming	Soft annealing	Hardening	Tempering
1050-850 °Celsius	820-850 °Celsius	1000 - 1040 °Celsius	530 - 680 °Celsius #

TEMPERING DIAGRAM :

