



**Cutting values - scrub-, face milling**

Mentioned values:  $V_c$  in m/min.

		1.2738		XPM	
		hardened and tempered		hardened and tempered	
		30-34 HRC	32-36 HRC	38-42 HRC	38-42 HRC
scrub milling <sup>1</sup>	HSS	+	*	*	
		-	*	*	
	hard metal Uncoated	P25 +	** (100)	** (120)	105
		P35 -	** (85)	** (100)	85
face milling <sup>2</sup>	hard metal Coated	P25 +	150	180	160
		P35 -	120	140	120
	HSS (1.3234)	+	20	20	20
	$f_z = \text{max. } 0,1 \text{ mm}$	-	12	12	12
hard metal Uncoated	P25 +	** (160)	** (210)	** (170)	170
	P35 -	** (130)	** (170)	** (120)	120
	hard metal Coated	K15 +	220	270	230
		P25 -	220	260	220
	hard metal Cement	P15 +	270	320	270
		-	*	*	

**Legend:**  
 \* not to recommend  
 \*\* The application of coated hartmetal will be recommended. If not, the mentioned values are valid.  
<sup>1</sup> advance per cog (fz) = 0,1 - 0,3 mm and relation of milling width to tool diameter < 3/4  
<sup>2</sup> advance per cog (fz) = 0,03 - 0,3 mm and relation of milling width to tool diameter = 1/10

**Hint:**  
 At tool diameter > 70 mm the cutting speed has to be reduced by factor 0,7  
 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.  
 edition: 10/2011

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

**UNIT 1 :** Plot No. 1442, Road No. 16, Kalamoli Warehousing Complex, Kalamoli, Navi Mumbai - 410 218. Tel.: 91-22-6513 3711 /12 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



**XPM VICTORY ESR**

Produced by:  
 **Schiedewerke Gröditz**  
 GmbH . since 1779 . High-Grade Steel



**XPM VICTORY ESR**  
**ELECTRO-SLAG-REMELTING (ESR)**

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



**GENERAL:**  
 - uniform hardness across the cross-section  
 - very high purity level  
 - best homogeneity  
 - high gloss polishing  
 - good machinability  
 - good able to nitride  
 - very good chrome plating  
 - good wear resistance  
 - greatly increased thermal conductivity  
 - improve weldability in comparison to 1.2738  
 - good toughness

**APPLICATIONS :**  
 - die steel for plastic moulds with very high requirements on the surface  
 - Headlamps, rearview mirror, lamps  
 - front guards, trims  
 - moulds for TV housings and rear walls, copier housings  
 - moulds for dashboards and large outside body parts

**CHEMICAL ANALYSIS : %**

C	Si	Mn	P	S	Cr	Mo	Ni	special elements
~0,27	~0,30	~1,55	≤ 0,025	≤ 0,003	~1,35	~0,50	~1,00	added

**PHYSICAL PROPERTIES :**

	20-100 °C	20-200 °C	20-300 °C	20-400 °C	20-500 °C
Coefficient of thermal expansion					
[10 <sup>-6</sup> m/(m x K)]	11,8	12,5	13,1	13,5	14,8
Thermal conductivity	20°C	250°C	500 °C		
[W/(m x K)]	37,2	41,0	39,2		

**ULTRASONIC :**

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

**CLEANLINESS :**

ASTM E45- Method A with type A ≤ 0,5  
 B; C and D each < 1,0 or  
 DIN 50602- K1 ≤ 10 or acc. to your request

**DELIVERY CONDITION :**

hardened and tempered

**SERVICE HARDNESS:**

38 - 42 HRC or acc. to your request

**STRUCTURE :**

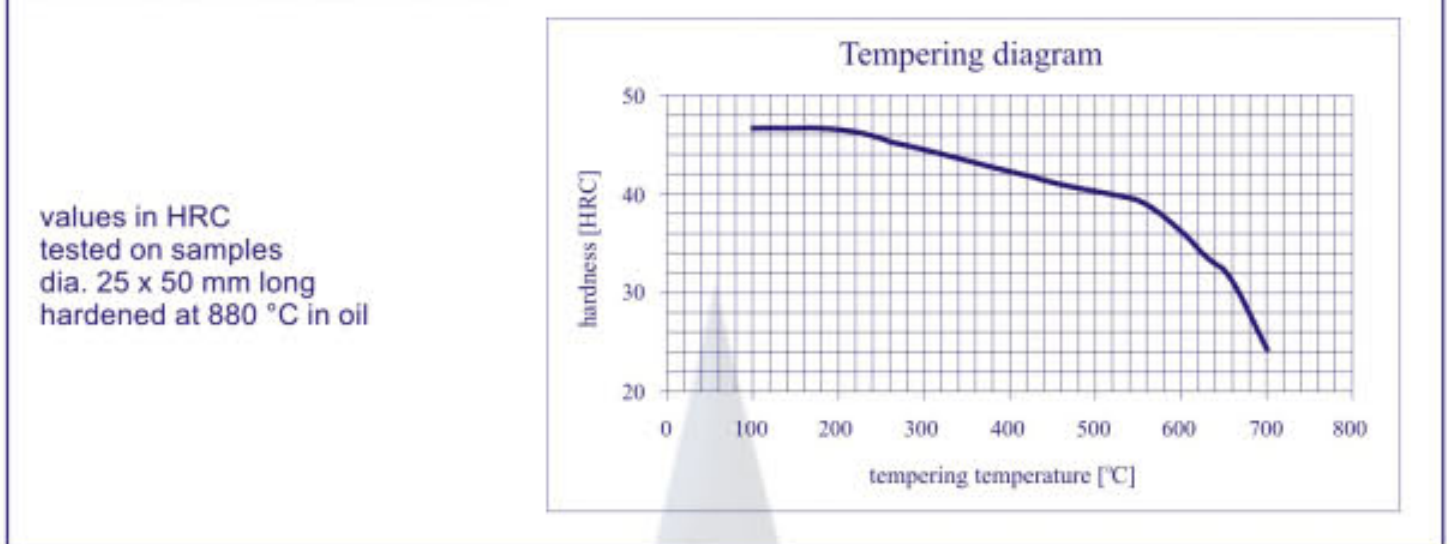
fine bainitic structure

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.  
 edition: 10/2011

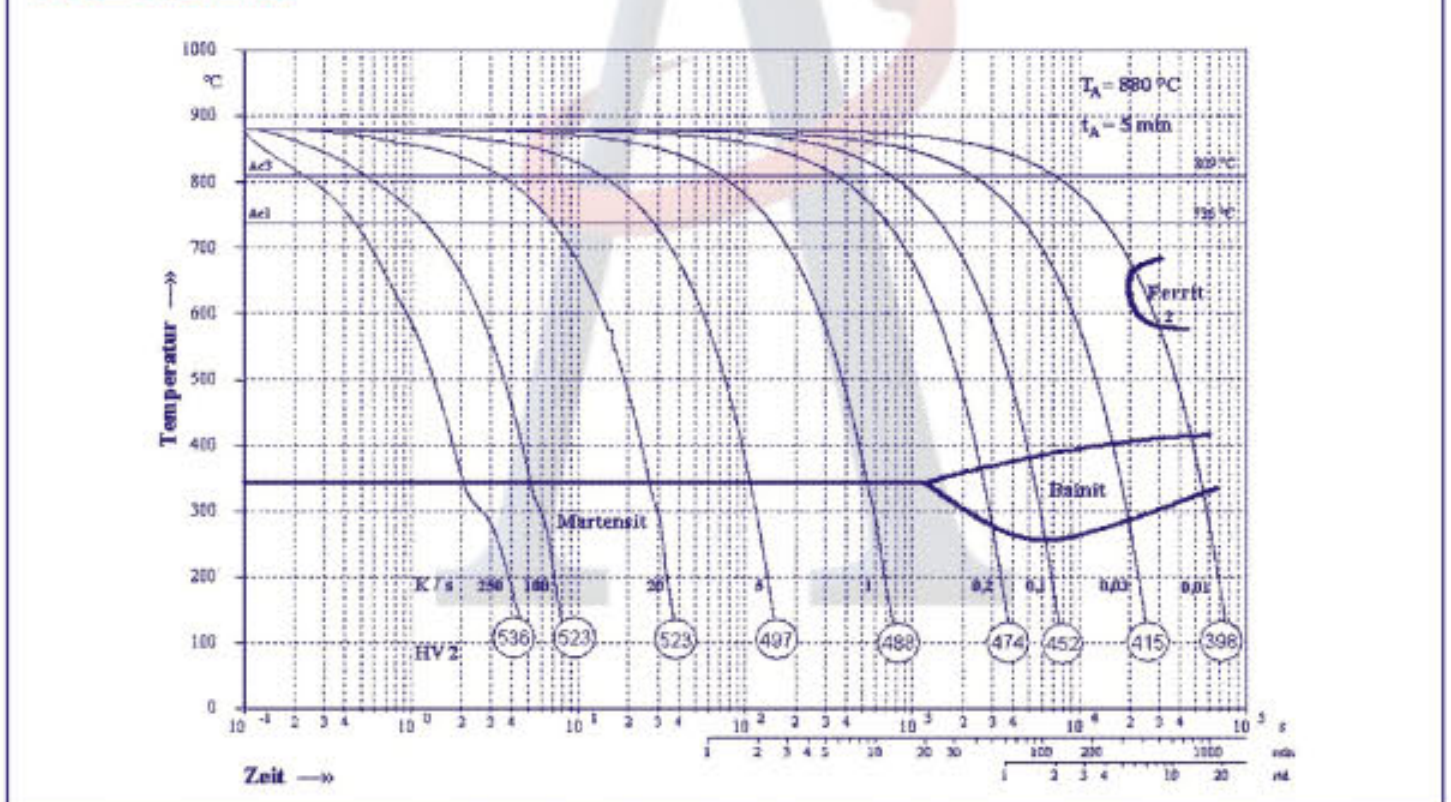
**HEAT TREATMENT :**

Hot forming	Soft annealing	Hardening	Tempering
1050-850°C	710-740°C	870 - 890 °C	540-650°C#

**TEMPERING DIAGRAM : #**



**CCT GRAPH :**



**DELIVERY SIZES :**

Blocks - up to 1000 mm thickness

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.  
 edition: 10/2011