



Sales Office:

GVG - Gröditzer Vertriebsgesellschaft mbH • Halskestrasse 23-25 • D-47877 Willich

Phone: +49 (0)2154 9415-0 • Fax: +49 (0)2154 9415-50

E-mail: vertrieb@stahl-groeditz.de • Homepage: <http://www.stahl-groeditz.de>

1.2083 VICTORY ESR®

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ESR = Electro-slag-remelting

GENERAL:

- good corrosion resistance
- good machinability
- good hardening stability and through-hardening
- low distortion
- high wear resistance
- excellent polishability in hardened condition
- high surface finish
- original finish over extended running periods
- very low inclusion content
- low repairing costs
- constant cycle times

APPLICATIONS:

Moulds for:

- corrosive materials, e.g. PVC,
- moulding abrasive/filled materials,
- including injection-moulded thermosetting grades
- with long production runs e.g. disposable cutlery and containers.
- production of optical parts, such as camera-and sunglasses lenses
- for medical containers, e.g. syringes

CHEMICAL ANALYSIS: %

C	Si	Mn	P	S	Cr
0,36 - 0,42	≤ 1,0	≤ 1,0	≤ 0,025	≤ 0,002	12,5 – 14,5

PHYSICAL PROPERTIES:

Coefficient of thermal expansion	20-100 °C	20-200 °C	20-300 °C	
[10 ⁻⁶ m/(m x K)]	10.9	11.2	11.5	
Thermal conductivity	20 °C	200 °C	300 °C	
[W/(m x K)]	22.0	24.0	26.0	

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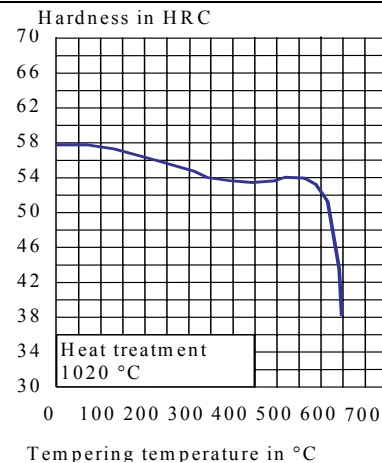
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HEAT TREATMENT:

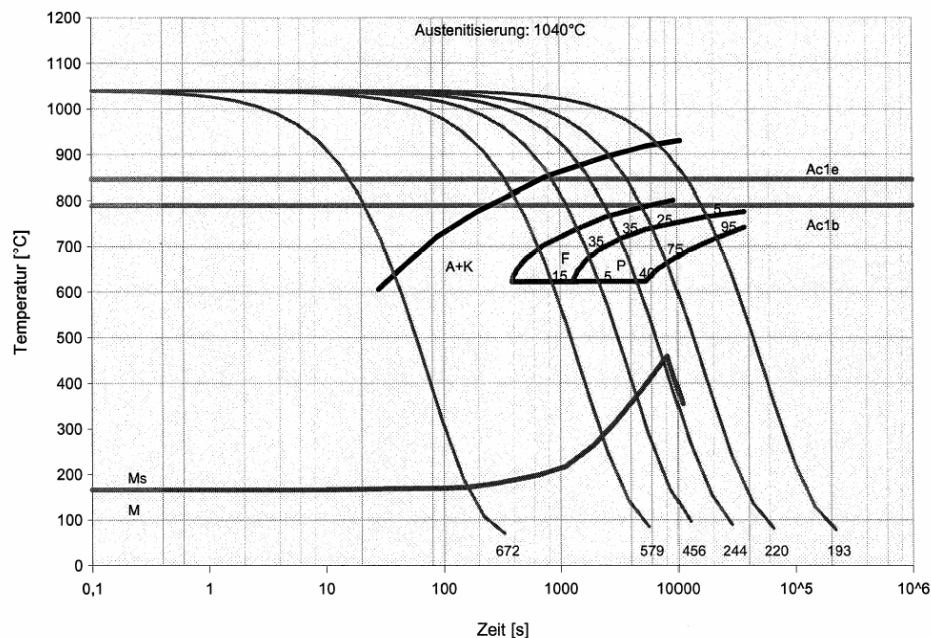
Hot forming	Soft annealing	Hardening	Tempering
1050 – 850 °C	760 – 800 °C	1000 – 1030 °C	250 – 570 °C #

TEMPERING DIAGRAM: #

values in HRC
tested on samples
dia. 25 x 50 mm long
hardened at 1010 °C in oil



CCT GRAPH:





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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 $\leq 0,5$,B; C and D each ≤ 1
or
DIN 50602– K1 ≤ 10
or
acc. to your request

DELIVERY CONDITION:

Soft annealed with a hardness of a maximum of 241HB
or hardened and tempered acc. to your request

SERVICE HARDNESS:

50 - 55 HRC

STRUCTURE:

fine uniform annealed structure

DELIVERY SIZES:

Rounds – up to 700 mm
Blocks – up to 500 mm thickness

or acc. to your request