



Sales Office:

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1.2343 (similar to AISI H11)

Conventional melting (EF+LF+VD)

GENERAL:

- Hot-work tool steel with a high resistance to heat and very good toughness
- high resistance to temperature fatigue and wear
- nitridable
- well polishable
- little change in dimension
- high full quenching and tempering properties
- also to be used as cold work steel

APPLICATIONS:

- Pressure casting tools for light metals
- tools for forging machines
- dies; die inserts
- extrusion pressing tools
- warm shear blades
- cold pilger mandrels and jaws
- der tools, such as worms, cylinders, nozzles

CHEMICAL ANALYSIS: %

C	Si	Mn	P	S	Cr	Mo	V
0,36 - 0,42	0,8 - 1,2	0,3 - 0,5	≤ 0,025	≤ 0,005	4,8 - 5,2	1,1 - 1,4	0,30 - 0,50

PHYSICAL PROPERTIES:

Coefficient of thermal expansion [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
		11.8	12.4	12.6	12.7	12.8	12.9
Thermal conductivity [W/(m x K)]	20 °C	350 °C	700 °C				
		25.3	27.2	30.5			

ULTRASONIC:

ASTM A388 - FBH max. 5 mm (1/5 inch) or
SEP 1921 - test group 3 - class D, d 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:

Soft annealed, respectively fine structure treated with a hardness of a maximum of 229 HB

SERVICE HARDNESS

30 - 54 HRC (~1000 - 1850 N/mm²)



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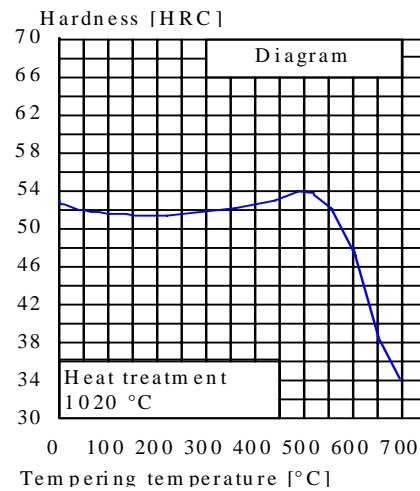
1.2343 (similar to AISI H11)

HEAT TREATMENT:

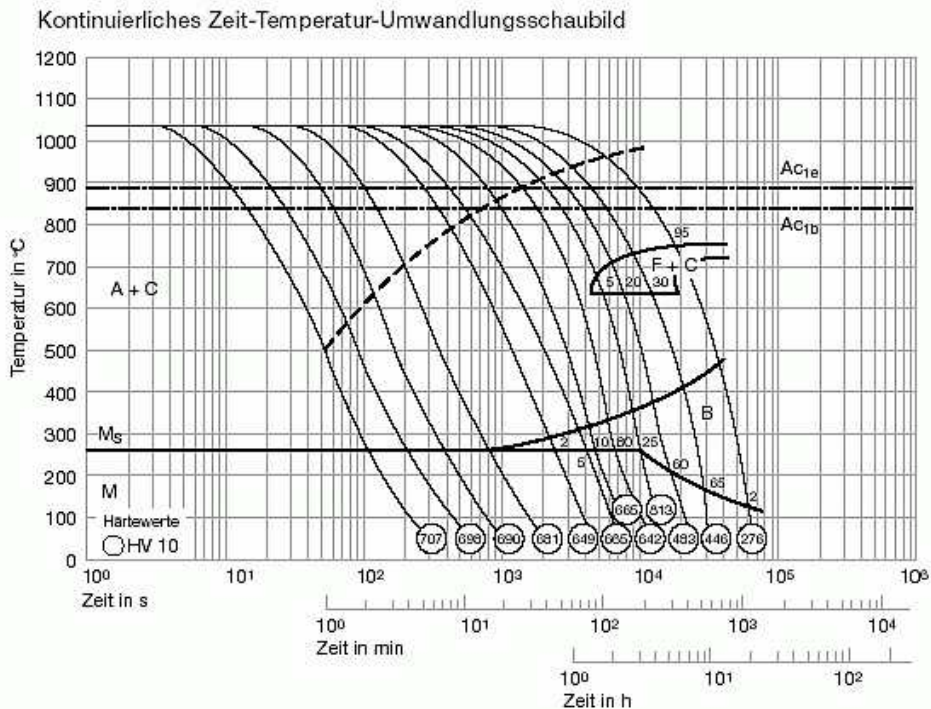
<i>Hot forming</i>	<i>Soft annealing</i>	<i>Hardening</i>	<i>Tempering</i>
1050 – 850 °C	820 – 840 °C	990 – 1030 °C	530 – 680 °C #

TEMPERING DIAGRAM:

values in HRC
 tested on samples dia. 25 x 50 mm long
 hardened at 1020 °C in oil



CCT GRAPH:



DELIVERY SIZES:

Rounds – up to 800 mm or
 Blocks – up to 600 mm thickness

or acc. to your request