



552B – Hot Working Tool Steel

Comparable standards

Werkstoff No.	EN
1.2714 ISO	56NiCrMoV7

General information

552B, made in Sweden by Scana Steel Björneborg AB, is a premium quality Cr-Ni-Mo-V alloyed steel which is supplied in soft annealed or hardened and tempered condition. Scana offers a wide dimensional range and even the largest dimensions show good toughness, high resistance to thermal stress and a very uniform hardness profile all through the cross section.

Chemical composition (%)

552B	C	Si	Mn	S	Cr	Ni	Mo	Others
Approx. Analysis %	0,55	0,25	0,95	0,001	1,10	2,00	0,75	+

Non metallic inclusion (cleanliness)

Specification according to ASTM E45-97, A

Grade	Class A		Class B		Class C		Class D	
	thin	thick	thin	thick	thin	thick	thin	thick
552B	Max		Max		Max		Max	
	1,5	1,5	1,5	1,5	1,5	1,5	2,0	2,0

Delivery condition: EAF, VAD, 3D-forged, hardened + double tempered or annealed condition.

Hardness / Strength: 40 - 44 HRC / 375 – 415 HB / TS = 1290 – 1420 N/mm²

Ultrasonic test standard: acc. to EN 10228-3 class 3

Sizes: Width max 1500 mm; Thickness max 700 mm

Characteristics: General hot working tool steel with good through-hardening, high cleanliness, good toughness and high resistance to thermal stresses.

Applications: Support part for extrusion tooling, hot forging tools and tools for hot sharing.

Physical properties:

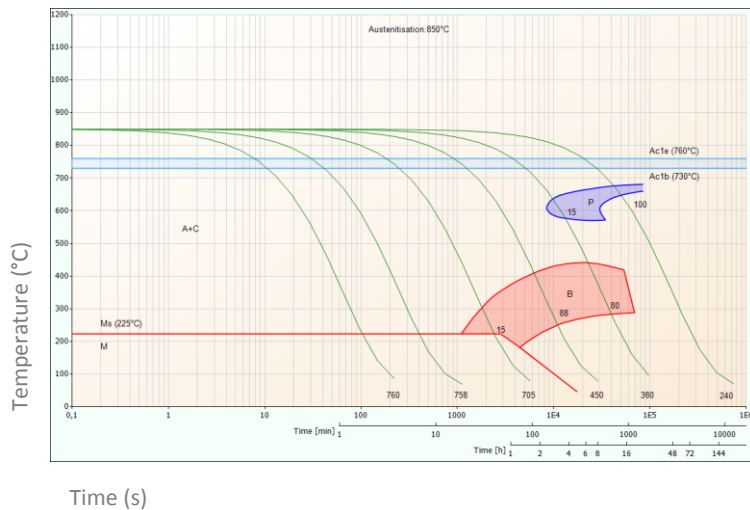
Temp °C	20	100	200	500
Modulus of Elasticity				
GPa	215			176
Coefficient of linear Expansion				
10 ⁻⁶ m/mK		12,5	13,1	14,0
Thermal Conductivity				
W/(mK)	36			36,8

Heat treatment

Note: 552B is finish heat-treated in the delivery condition.

	Temp. (°C)	Cooling media
Annealing	650 - 700	air
Hardening	830 - 870	Oil (down to 150°C)
Tempering	see tempering diagram	cooling down on air to 450°C
Stress relieving	approx. 650	cooling down in air

CCT – diagram (Generated from Dr.Sommer Werstofftechnik HT database)



Tempering - diagram

