

ACCIAI RAPIDI

Granulometria disponibile

Prodotti lunghi

Descrizione del prodotto

Acciaio rapido al Molibdeno, utilizzato per le sue doti di alto rendimento ed efficienza.

Percorso di fusione

Airmelted

Proprietà

- > Durezza e duttilità : alto
- > Resistenza all'usura : buono
- > Resistenza alla compressione : alto
- > Stabilità dei bordi : buono
- > Macinabilità : alto
- > Durezza a caldo (durezza rossa) : buono

Applicazioni

- > Punte speciali elicoidali
- > Utensili per lavorazioni di sgrossatura e sagomatura
- > Brocche e alesatori

Dati tecnici

Corrispondenze		Standard	
1.3348	SEL	4957	EN ISO
HS2-9-2	EN	A600	ASTM
M7	AISI		

Analisi chimica

C	Si	Mn	Cr	Mo	V	W
1,02	0,4	0,3	3,8	8,6	1,9	1,8

Proprietà del materiale

	Resistenza alla compressione	Macinabilità	Durezza a caldo	Tenacità	Resistenza all'usura	Resistenza al taglio
BÖHLER S400	★★★	★★★	★★★	★★★	★★	★★
BÖHLER S200	★★★	★★	★★★	★★	★★★	★★
BÖHLER S401	★★	★★★	★★	★★★	★★	★★★
BÖHLER S404	★★	★★★	★★	★★★	★★	★★
BÖHLER S405	★★★	★★★	★★	★★★	★★	★★
BÖHLER S430	★★	★★★	★★	★★★	★★	★★
BÖHLER S500	★★★★	★★★	★★★★	★★	★★★	★★★
BÖHLER S600	★★★	★★★	★★★	★★	★★	★★★
BÖHLER S607	★★★	★★★	★★★	★★	★★★	★★★
BÖHLER S630	★★★	★★★	★★★	★★	★★	★★★
BÖHLER S705	★★★	★★★	★★★★	★★	★★	★★★★
BÖHLER S730	★★★	★★★	★★★★	★★	★★	★★★★

Condizioni di consegna
Ricotto

Durezza (HB)	max. 280 Drawn max 300 HB
Resistenza alla trazione (N/mm ²)	max. 1.020

Trattamento termico
Annealing

Temperatura	770 a 840 °C	Controlled slow cooling in furnace (10 - 20°C / h (50 - 68°F / h) to approx. 600°C (1110°F), air cooling.
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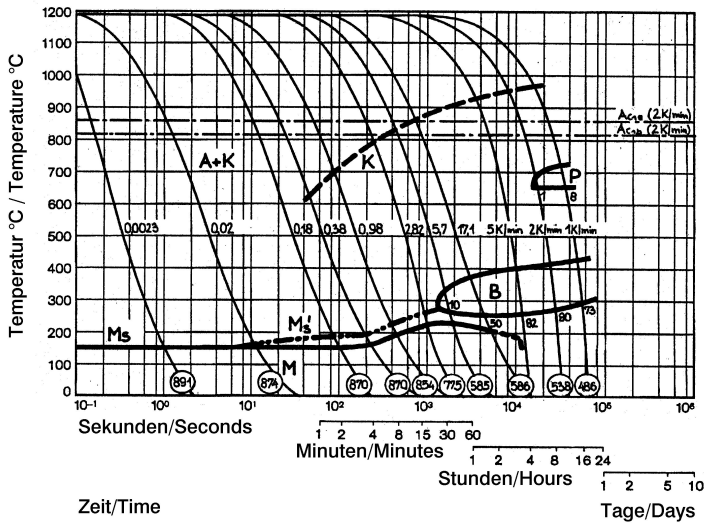
Alleviare lo stress

Temperatura	600 a 650 °C	Slow cooling furnace. To relieve stresses set up by extensive machining or in tools of intricate shape. After through heating, hold in neutral atmosphere for 1 to 2 hours.
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Tempra e rinvenimento

Temperatura	1.170 a 1.210 °C	Salt bath, vacuum Preheating: 1st stage ~ 500 °C, 2nd stage ~ 850 °C, 3rd stage ~ 1050 °C Austenitising: 1170 - 1210 °C, holding time after complete heating 80 seconds, maximum 150 seconds, to avoid material damage due to overheating. Quenching: oil, warm bath (500 - 550 °C), gas
Temperatura	540 a 570 °C	Slow heating to tempering temperature immediately after austenitising. Dwell time in the furnace 1 hour per 20 mm material thickness (at least 1 hour) Slow cooling to room temperature 3 tempering cycles recommended Hardness see tempering chart

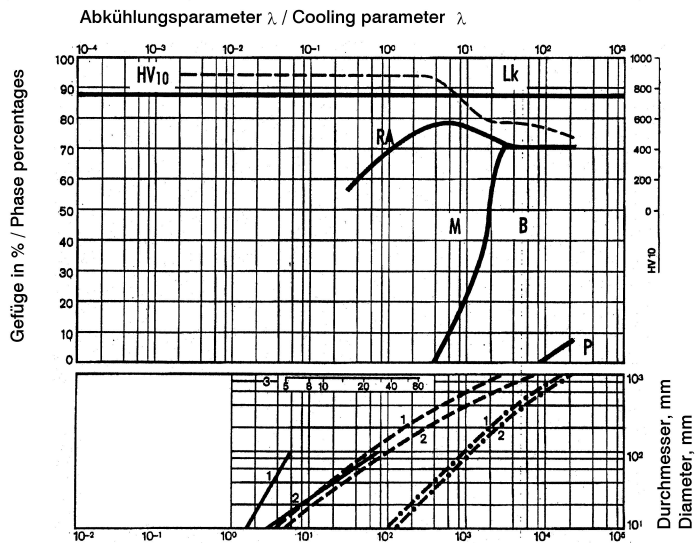
Continuous cooling CCT curves



Austenitising temperature: 1190°C (2174°F)
Holding time: 180 seconds

- A...Austenite
- B...Bainite
- K...Carbide
- P...Pearlite
- M...Martensite
- RA...Retained Austenite

Quantitative phase diagram



- A...Austenite
- B...Bainite
- K...Carbide
- P...Pearlite
- M...Martensite
- RA...Retained Austenite

- 1...Edge or Face
- 2...Core
- 3...Jominy test: distance from quenched end

Kühlzeit von 800°C auf 500°C in Sek. / Cooling time in sec. from 800°C to 500°C

Tempering Chart



Holding time 3 x 2 hours
Specimen size: square 25 mm

Proprietà fisiche

Temperatura (°C)	20
Densità (kg/dm ³)	8,3
Conducibilità termica (W/(m.K))	19
Capacità termica specifica (kJ/kg K)	0,46
Resistenza elettrica specifica (Ohm.mm ² /m)	0,65
Modulo di elasticità (10 ³ N/mm ²)	217

Espansioni termiche

Temperatura (°C)	100	200	300	400	500	600	700
Espansione termica (10 ⁻⁶ m/(m.K))	11	11,5	11,9	12,3	12,4	12,5	12,5

For additional specifications and technical requirements, please contact our regional voestalpine BÖHLER sales companies.

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ONE STEP AHEAD.