YÜKSEK HIZ ÇELIKLERI

Mevcut Ürün Şekilleri

Uzun Ürünler* | Levhalar

*) Presented data refer exclusivly to long products. Please observe the detailed explanations at the end of the data sheet (pdf).

Ürün Tanımı

BÖHLER S630 – "The economical one"
Tungsten-molybdenum high-speed steel with aluminum alloy for great toughness and good machinability. Universally usable for taps and twist drills, reamers, metal saws, mills of all types, and woodworking tools.

Erime rotası

Airmelted

Özellikler

- Tokluk ve Süneklik : yüksek
- Aşınma Direnci : yüksek
- Basınç Dayanımı : yüksek
- Kenar Stabilitesi : çok yüksek
- Öğütülebilirlik : iyi
- Sıcak Sertlik (kırmızı sertlik) : yüksek

Uygulamalar

- Cold Forming / Coining
- Rolling
- Standard Parts (Molds, Plates, Pins, Punches)
- Fine Blanking, Stamping, Blanking
- Shearing / Machine Knives
- Twist Drills and Taps
- Powder Pressing
- Special Cutting Tools
- Wear parts

Teknik veriler

Malzeme Tanımı	
1.3330	SEL
HS 4-4-2 Al	EN

Kimyasal Bileşim

C	Cr	Mo	V	W	Al
0,95	4,00	4,00	2,00	4,00	0,50

Malzeme özellikleri

	Basınç Dayanımı	Öğütülebilirlik	Sıcak sertlik	Sertlik	Aşınma direnci	Kesilme direnci
BÖHLER S630	★★★	★★★	★★★	★★	★★	★★★
BÖHLER S200	★★★	★★	★★★	★★	★★★	★★
BÖHLER S400	★★★	★★★	★★★	★★★	★★	★★
BÖHLER S401	★★	★★★	★★	★★★	★★	★★★
BÖHLER S404	★★	★★★	★★	★★★	★★	★★
BÖHLER S430	★★	★★★	★★	★★★	★★	★★
BÖHLER S500	★★★★	★★★	★★★★	★★	★★★	★★★
BÖHLER S600	★★★	★★★	★★★	★★	★★	★★★
BÖHLER S607	★★★	★★★	★★★	★★	★★★	★★★
BÖHLER S705	★★★	★★★	★★★★	★★	★★	★★★★
BÖHLER S730	★★★	★★★	★★★★	★★	★★	★★★★

Teslimat durumu

Annealed

Sertlik (HB)	maks. 280
Çekme mukavemeti (MPa)	maks. 950

Isıl işlem

Annealing

Sıcaklık	770 kadar 840 °C	Controlled slow cooling in furnace (10 - 20°C / h / (50 - 68°F 7 h) to approx. 600°C (1110°F), air cooling.

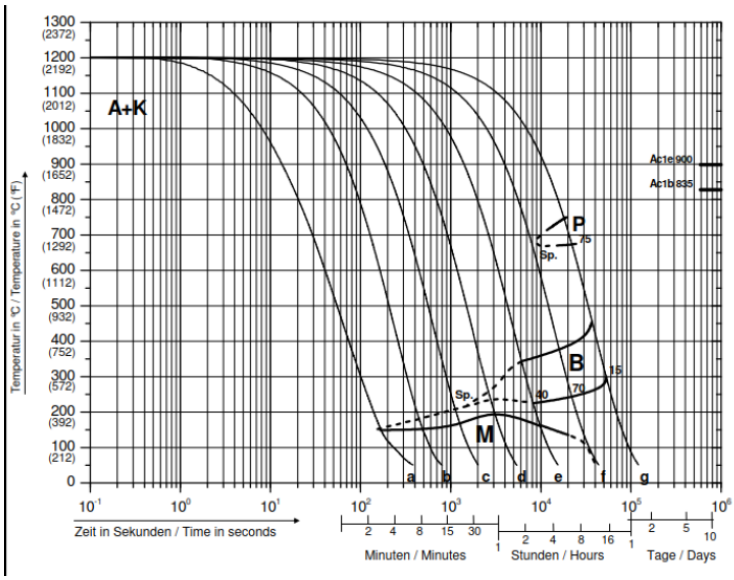
Stress relieving

Sıcaklık	600 kadar 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.

Sertleştirme ve Temperleme

Sıcaklık	1.050 kadar 1.200 °C	Salt bath, vacuum || Preheating: 1st stage ~ 500 °C, 2nd stage ~ 850 °C, 3rd stage ~1050 °C (for higher austenitising temperature) || Austenitising: for cutting applications at higher austenitising temperatures (>1130 °C), holding time after complete heating 80 seconds, maximum 150 seconds, to avoid material damage due to overtime. || Austenitising: for cold work applications at lower austenitising temperatures (<1100°C). Holding time after complete heating 15 to 30 min || Quenching: oil, warm bath (500 - 550 °C), gas.
Sıcaklık	550 kadar 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 after each tempering step|| 3 tempering cycles recommended || Hardness see tempering chart

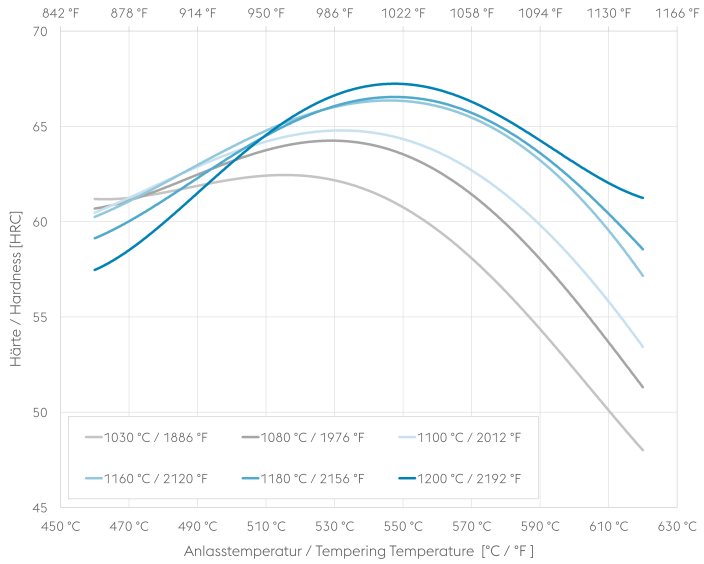
Continuous cooling CCT curves



Austenitising temperature: 1210°C (2210°F)
Holding time: 180 seconds

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

Tempering Chart



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

Fiziksel özellikler

Sıcaklık (°C)	20
Yoğunluk (kg/dm^3)	7,88
Termal iletkenlik (W/(m.K))	18,8
Özgül ısı kapasitesi (kJ/kg K)	0,432
Spes. elektrik direnci (Ohm.mm^2/m)	0,56
Elastikiyet modülü (10^{3}N/mm^2)	217

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

Sheet & Plates: Product Variant may differ in terms of melting process, technical data, delivery, and surface condition as well as available product dimensions. Please contact voestalpine BÖHLER Bleche GmbH & Co KG.

The data contained in this brochure is merely for general information and therefore shall not be binding on the company. We may be bound only through a contract explicitly stipulating such data as binding. Measurement data are laboratory values and can deviate from practical analyses. The manufacture of our products does not involve the use of substances detrimental to health or to the ozone layer.

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ONE STEP AHEAD.