

KOUDVERVORMSTAAL

Beschikbare uitvoeringen

Stafstaal*

Plaat

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

Product omschrijving

Stempels, matrijzen, priemen, walscilinders, koudstuikmatrijzen, gereedschappen voor koudextrusie, cirkelmessen, schaarmessen, granuleermessen, gereedschappen voor de houtbewerking, kunststofmatrijzen, schroeven voor spuitgietsmachines, spuitstukken en schroefspuitstukken, gereedschap voor sinterpersen

Smeltroute

Powder metallurgy

Eigenschappen

- > Taaiheid & Vervormbaarheid : goed
- > Slijtageweerstand : zeer hoog
- > Samenpersende sterkte : zeer hoog
- > Dimensionale stabiliteit : zeer hoog

Toepassingen

- > Machinale messen (voor fabrikanten)
- > Cold Forming
- > Fijn stanswerk / ponsen / stampen
- > Schroeven en vaten
- > Algemene componenten voor werktuigbouw

Technische gegevens

Materiaal aanduiding	
1.2395	SEL
T30111	UNS
PM A11	AISI

Chemische samenstelling

C	Si	Mn	Cr	Mo	V
2,45	0,90	0,50	5,20	1,30	9,70

Materiaaleigenschappen

	Drukbelastingcapaciteit	Dimensionale stabiliteit tijdens warmtebehandeling	Taatheid	Slijtvast abrasief	Slijtvaste lijm
BÖHLER K294 MICROCLEAN®	★★★★★	★★★★★	★★★	★★★★★	★★★★★
BÖHLER K100	★★	★★	★	★★★	★★
BÖHLER K105	★★	★★	★	★★	★★
BÖHLER K107	★★	★★	★	★★★	★★
BÖHLER K110	★★	★★★	★	★★★	★★
BÖHLER K190 MICROCLEAN®	★★★★	★★★★★	★★★★	★★★★	★★★★
BÖHLER K340 ECOSTAR®	★★★	★★★	★★	★★	★★
BÖHLER K340 ISODUR®	★★★	★★★★	★★★	★★★	★★★★
BÖHLER K346	★★★	★★★	★★★	★★★★	★★
BÖHLER K353	★★	★★★	★★	★★	★★
BÖHLER K360 ISODUR®	★★★	★★★★	★★★	★★★★	★★★★
BÖHLER K390 MICROCLEAN®	★★★★★	★★★★★	★★★★	★★★★★	★★★★★
BÖHLER K490 MICROCLEAN®	★★★★	★★★★★	★★★★	★★★★	★★★★
BÖHLER K497 MICROCLEAN®	★★★★★	★★★★★	★★★	★★★★★	★★★★★
BÖHLER K888 MATRIX	★★★★	★★★★★	★★★★★	★★	★★
BÖHLER K890 MICROCLEAN®	★★★★	★★★★★	★★★★★	★★★	★★★

Leveringsconditie

gegloeid

Hardheid (HB)	max. 277
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Warmtebehandeling

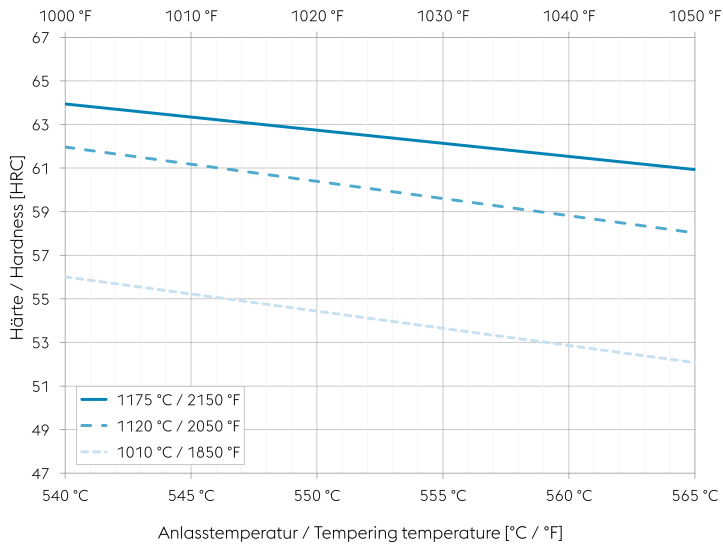
Annealing

Temperatuur	570 naar 870 °C	Protect steel from scaling and/or decarburization. Heat through to 1600°F (870°C). Control cool at 30°F (15°C) maximum per hour to 1000°F (540°C), then furnace or air cool to room temperature.
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Stress relieving

Temperatuur	595 naar 700 °C	If required after Rough machining to minimize distortion during final heat treatment, heat to 1100-1300°F (595-700°C) and hold for 2 hrs followed by furnace. Cool slowly to 930°F (500°C), then air cool.
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Tempering chart



Tempering:

Specimen size: square 0,787 inch (20 mm)

Slow heating to tempering temperature immediately after hardening.

Time in furnace 1 hour for each 0,787 inch (20 mm) of workpiece thickness but at least 2 hours/cooling in air.

Slow cooling to room temperature after each tempering step is recommended.

Please refer to the tempering chart for guide values for the hardness achievable after tempering.

It is recommended to temper at least three times above the secondary hardness maximum.

Tempering for stress relieving 86 to 122 °F (30 to 50 °C) below the highest tempering temperature.

Fysische eigenschappen

Temperatuur (°C)	20
Soortelijk gewicht (kg/dm ³)	7,42
Thermische conductiviteit (W/(m.K))	20,39
Soortelijke warmte (kJ/kg K)	0,46
Specifieke elektrische weerstand (Ohm.mm ² /m)	-
Elasticiteitsmodus (10 ³ N/mm ²)	221

Thermische expansie

Temperatuur (°C)	93	260	427	593
Thermische expansie (10 ⁻⁶ m/(m.K))	10,7	11,1	11,8	12,3

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.