BÖHLER

BÖHLER K497
MICROCLEAN®

ACCIAI DA UTENSILI PER LAVORAZIONE A FREDDO

Granulometria disponibile

Prodotti lunghi* | Lamiere

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

Descrizione del prodotto

Acciaio prodotto con la metallurgia delle polveri con massima resistenza ad usura ed elevata tenacità.

Percorso di fusione

Powder metallurgy

Proprietà

- Durezza e duttilità : alto
- Resistenza all'usura : alto
- Resistenza alla compressione : alto
- Stabilità dimensionale : molto alto

Applicazioni

- Stampaggio a freddo
- Tranciatura / Tranciatura fine / Stampaggio
- Componenti per il settore ingegneria meccanica

Analisi chimica

C	Si	Mn	Cr	Mo	V
1,85	0,85	0,50	5,30	1,30	9,00

Proprietà del materiale

	Resistenza alla compressione	Stabilità dimensionale durante il trattamento termico	Tenacità	Abrasivo resistente all'usura	Adesivo resistente all'usura
BÖHLER K497 MICROCLEAN®	★★★★★	★★★★★	★★★	★★★★★	★★★★★
BÖHLER K100	★★	★★	★	★★★	★★
BÖHLER K105	★★	★★	★	★★	★★
BÖHLER K107	★★	★★	★	★★★	★★
BÖHLER K110	★★	★★★	★	★★★	★★
BÖHLER K190 MICROCLEAN®	★★★★	★★★★★	★★★★	★★★★	★★★★
BÖHLER K294 MICROCLEAN®	★★★★★	★★★★★	★★★	★★★★★	★★★★★
BÖHLER K340 ECOSTAR®	★★★	★★★	★★	★★	★★
BÖHLER K340 ISODUR®	★★★	★★★★	★★★	★★★	★★★★
BÖHLER K346	★★★	★★★	★★★	★★★★	★★
BÖHLER K353	★★	★★★	★★	★★	★★
BÖHLER K360 ISODUR®	★★★	★★★★	★★★	★★★★	★★★★
BÖHLER K390 MICROCLEAN®	★★★★★	★★★★★	★★★★	★★★★★	★★★★★
BÖHLER K490 MICROCLEAN®	★★★★	★★★★★	★★★★	★★★★	★★★★
BÖHLER K888 MATRIX	★★★★	★★★★★	★★★★★	★★	★★
BÖHLER K890 MICROCLEAN®	★★★★	★★★★★	★★★★★	★★★	★★★

Condizioni di consegna

Ricotto	
Durezza (HB)	max. 277

Trattamento termico

Soft annealing

Temperatura	870 a 900 °C	Protect steel from scaling and/or decarburization. || Neutral atmosphere || Slow controlled cooling in furnace at a rate of 18 to 36 °F/hr (10 to 20 °C/hr) down to approx. 1000 °F (540 °C) || Further cooling in furnace or air to room temperature.

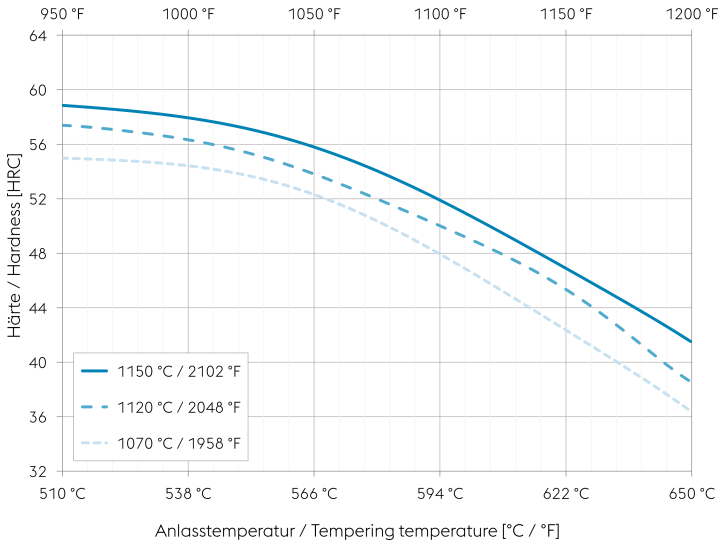
Alleviare lo stress

Temperatura	595 a 700 °C	After through heating, hold in neutral atmosphere for 2 hours. || Slow cooling in furnace to 500 °C (930 °F) || Further cooling in air || Intended to relieve stresses caused by extensive machining or in complex shapes.

Tempra e rinvenimento

Temperatura	1.040 a 1.150 °C	Preheating: To minimize distortion during heating for hardening, two preheat steps are recommended. First preheat at 1200 °F (650 °C) and equalize. Second preheat at 1500-1550 °F (820-840 °C) and equalize. || Quenching: gas (N_2 | recommended), salt bath (200 to 250 °C or 500 to 550 °C | 392 to 482 °F or 932 to 1022 °F), compressed air. || After hardening, tempering to the desired working hardness according to the tempering chart.

Tempering chart



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

Slow heating to tempering temperature immediately after hardening.

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

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

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

Cooling in air to room temperature after each tempering step is recommended.

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

Proprietà fisiche

Temperatura (°C)	**20**
Densità (kg/dm^3)	7,4
Conducibilità termica (W/(m.K))	-
Capacità termica specifica (kJ/kg K)	-
Resistenza elettrica specifica (Ohm.mm^2/m)	-
Modulo di elasticità (10^{3}N/mm^2)	221

Espansioni termiche

Temperatura (°C)	100	200	300	400	650
Espansione termica (10^{-6} m/(m.K))	11,1	11,2	11,3	11,5	11,8

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.

voestalpine BÖHLER Edelstahl GmbH & Co KG
Mariazeller Straße 25
8605 Kapfenberg, AT
T. +43/50304/20-0
E. info@bohler-edelstahl.at
https://www.voestalpine.com/bohler-edelstahl/de/