

ACCIAI DA UTENSILI PER LAVORAZIONE A FREDDO

Granulometria disponibile

Prodotti lunghi

Descrizione del prodotto

BÖHLER K346 belongs to the group of conventionally produced 8% chromium steels. Its alloy composition features a high content of molybdenum, tungsten and vanadium, which makes BÖHLER K346 more wear resistant and tougher than conventional 12% chromium steels (1.2080, 1.2379). BÖHLER K346 is used in situations where materials like 1.2379 are insufficient in terms of toughness and where high requirements for abrasive wear resistance are set. This combination of high wear resistance and toughness offers advantages for industrial knives subject to high stress in the recycling industry. This grade is also used for stamping and cutting tools.

Percorso di fusione

Airmelted

Proprietà

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

Applicazioni

- > Lame automatiche (per produttori)
- > Componenti per il settore del riciclo
- > Comp. per apparecchiature AI di sotto del suolo (alesaggio, alberi, ecc.)
- > Thread rolling (IT)

Analisi chimica

C	Si	Mn	Cr	Mo	V
1,13	1,20	0,35	7,80	1,60	2,40

Proprietà del materiale

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

Condizioni di consegna
Ricotto

Durezza (HB)	max. 250
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Trattamento termico
Annealing

Temperatura	840 a 870 °C	Slow controlled cooling in furnace at a rate of 50 to 68°F/hr (10 to 20°C/hr) down to approx. 1112°F (600°C), further cooling in air.
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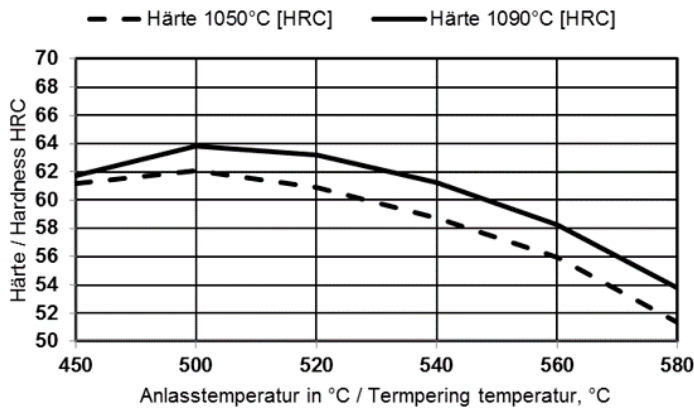
Alleviare lo stress

Temperatura	650 °C	After through-heating, soak for 1 to 2 hours in neutral atmosphere, then slow cooling in furnace. This is used to relieve stresses caused by extensive machining or for complex geometries.
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Tempra e rinvenimento

Temperatura	1.050 a 1.090 °C	After through-heating, soak for 15 to 20 minutes. Quenching in air, oil or vacuum. After hardening, tempering to the desired working hardness, see tempering chart.
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Tempering Chart



Tempering:

Hardening temperature:

———— 1090°C

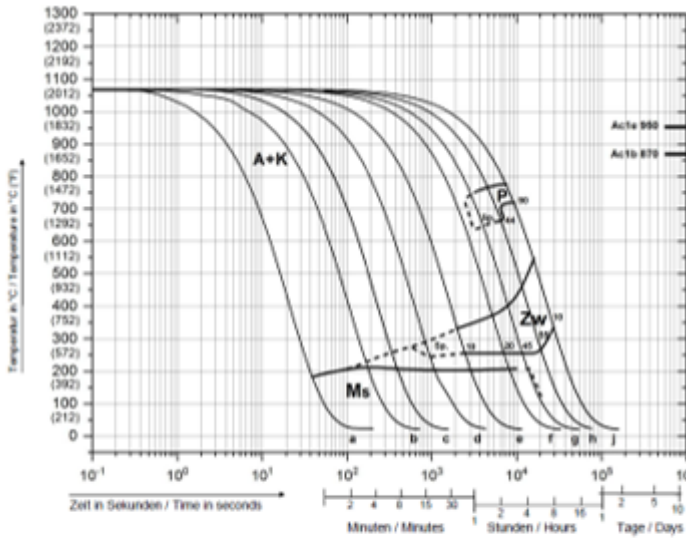
----- 1050°C

Sample profile: 0,28x0,39 inch (7x10 mm)

hardened in vacuum; N₂-cooling 72,52 psi (5 bar);

Tempering 3x2 hours

Continuous cooling CCT curves



Austenitising temperature: 1958°F (1070°C)

Holding time: 30 minutes

10...90 phase percentages

Cooling parameter λ : i.e. duration of cooling from 1472 to 932°F (800 to 500°C) in $s \times 10^{-2}$

Probe	(DIL805) Vers.Nr.	λ	HV _{0.05}	RA%	Probe	(DIL805) Vers.Nr.	λ	HV _{0.05}	RA%
a	2151	0,1	812	14	g	2154	38	610	7
b	2153	0,5	810	13	h	2180	65	370	1
e	2148	1,1	810	12	j	2183	110	260	<1
d	2156	3	790	16					
e	2182	8	750	14					
f	2158	23	680	13					

Proprietà fisiche

Temperatura (°C)	20
Densità (kg/dm ³)	7,64
Conducibilità termica (W/(m.K))	22
Capacità termica specifica (kJ/kg K)	0,47
Resistenza elettrica specifica (Ohm.mm ² /m)	0,6
Modulo di elasticità (10 ³ N/mm ²)	220

Espansioni termiche

Temperatura (°C)	100	200	300	400	500	600	700
Espansione termica (10 ⁻⁶ m/(m.K))	11	11,5	12	12,4	12,7	13	13,2

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

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