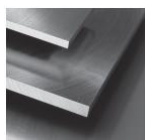


## Steel grade

Material No. / Werkstoff-Nr.	PREMIUM 1.4125
Description	X105CrMo17
AISI/SAE	440C
Search for alternatives in the ABRAMS STEEL GUIDE®	<a href="http://www.steel-guide.eu/alternatives/440C">www.steel-guide.eu/alternatives/440C</a>

## Specifications



€co-Präz® [€co]  
L: 500 mm

## Chemical composition AISI/SAE 440C (reference value %)

C	Si	Mn	P	S	Cr	Mo
0,95 - 1,20	0 - 1,0	0 - 1,0	0 - 0,04	0 - 0,015	16,0 - 18,0	0,4 - 0,8

## Physical properties

Hardness (delivery condition)	max. 285 HB, annealed			
Tensile strength R <sub>m</sub> (as received condition)	ca. 965 N/mm <sup>2</sup>			
Working hardness	max. 60 HRC			
Thermal expansion coefficient 10 <sup>-6</sup> m/(m • K)	20 - 100°C	20 - 200°C	20 - 300°C	20 - 400°C
	10,4	10,8	11,2	11,6
Thermal conductivity W/(m • K)	20°C			
	15,5			

## Technical properties

Stainless, martensitic steel with high hardness and high wear resistance and good cutting power due to the higher carbon content. Compared to the AISI / SAE 440B this steel has a slightly higher hardenability at the expense of the corrosion resistance. The material is conditionally acid resistant.

## Applications

Knives for the food industry, for example frozen food cutters, pork and beef cleaving knives and fish industry knives as well as accessories for meat grinders.

## Heat treatment

	Temperature	Cooling	Hardness
Soft annealing	780 - 840°C	Furnace	max. 285 HB
Stress relief annealing	Temperature	Cooling	
	600 - 650°C	Furnace	
Tempering	Temperature	Quenching in	
	1000 - 1050°C	Air, oil, hot basin (500 - 550°C)	

## ABRAMS PREMIUM STEEL

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Abrams Engineering Services GmbH & Co. KG  
Hannoversche Str. 38 · 49084 Osnabrueck / Germany  
Managing Director: Dipl.-Wi.-Ing. Dr. Juergen Abrams

Amtsgericht Osnabrueck / Germany, HRA 6865  
VAT-No.: DE 221940667  
General Partner: Abrams Engineering Verwaltungs GmbH  
Amtsgericht Osnabrueck / Germany, HRB 20019

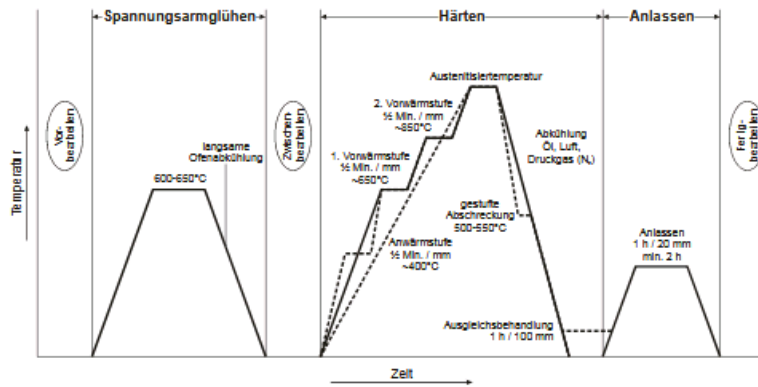
T: +49 (0) 5 41/3 57 39-0  
F: +49 (0) 5 41/3 57 39-39

[sales@premium-steel.eu](mailto:sales@premium-steel.eu)  
[www.premium-steel.eu](http://www.premium-steel.eu)  
[www.shop.premium-steel.eu](http://www.shop.premium-steel.eu)  
[www.steel-guide.eu](http://www.steel-guide.eu)

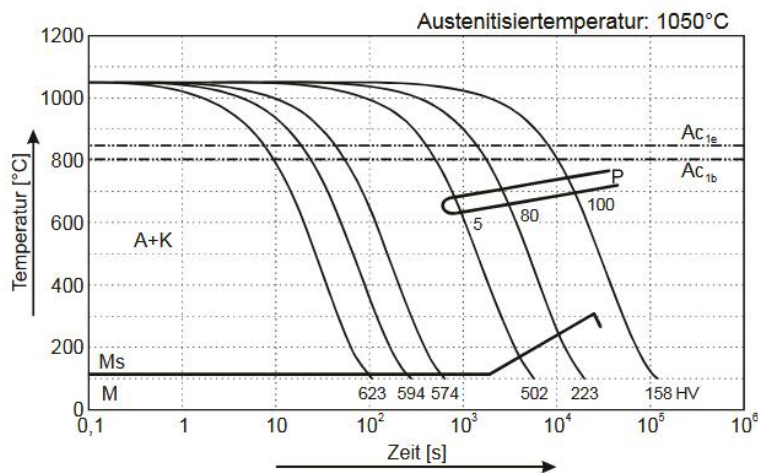
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## Heat treatment scheme



## Continuous ZTU-diagram



## Tempering diagram

