

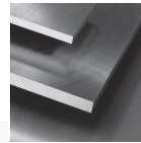
## Steel grade

Material No.	PREMIUM 304
AISI	304; S30400
Search for alternatives in the ABRAMS STEEL GUIDE	<a href="http://www.abrams-steelguide.com/alternatives/304">www.abrams-steelguide.com/alternatives/304</a>

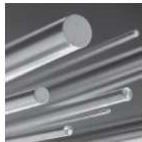
## Shapes



**Smart Flat Stock [Smart]  
Standardized Precision Blanks**  
L: 12"  
L: 24"



**Smart Flat Stock Metric [Smart]  
Standardized Precision Blanks Metric**  
L: 300 mm  
L: 600 mm



**Cold Finished Rounds [CF]  
Precision Round Bars**  
L: 18"  
L: 36"



**Cold Finished Rounds Metric [CFM]  
Precision Round Bars Metric**  
L: 914 mm (36")

## Chemical composition AISI 304 (reference value %)

C	Si	Mn	P	S	Cr	Ni	N
0 - 0.7	0 - 1.0	0 - 2.0	0 - 0.045	0 - 0.015	17.5 - 19.5	8.0 - 10.5	0 - 0.11

## Physical properties

Hardness (delivery condition)	max. 215 HB, annealed				
Tensile strength $R_m$ (as received condition)	approx. 100.0 KSI				
Working hardness	max. <20 HRC				
Thermal expansion coefficient $10^{-6}m/(m \cdot K)$	68 - 212°F	68 - 392°F	68 - 572°F	68 - 752°F	68 - 932°F
	16.0	16.5	17.0	17.5	18.0
Thermal conductivity $W/(m \cdot K)$	68°F				
	15.0				

## Technical properties

Corrosion resistant austenitic stainless chrome-nickel-steel with good processability and attractive appearance (ground-high-gloss polished). It has excellent deep drawing properties, is weldable and wear resistant but non-magnetisable and limited machining properties. Average mechanical properties, and conditionally acid resistant.

## Applications

Food industry, photographic industry, paint industry, oil industry, soap industry, paper industry, textile industry, mechanical engineering, turned parts, fittings construction, kitchen equipment, decoration.

## Heat treatment

Soft annealing	Temperature	Cooling	Hardness
	1832 – 1976°F	Air	max. 215 HB

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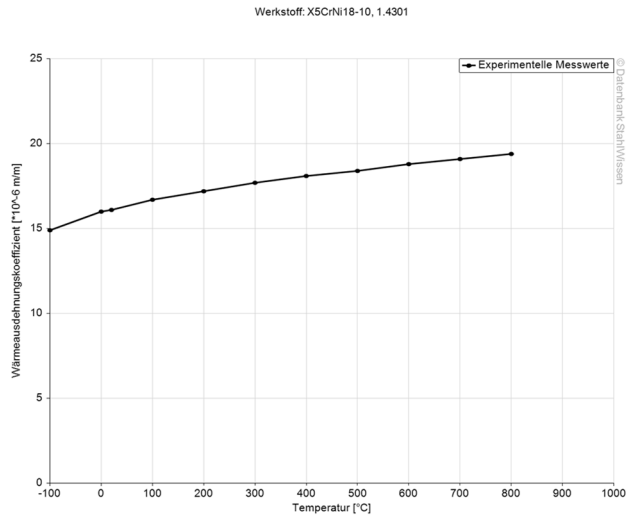
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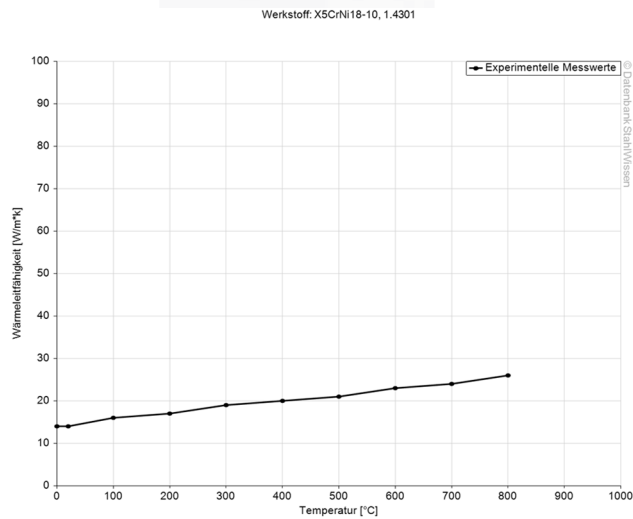
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## Thermal expansion coefficient diagram

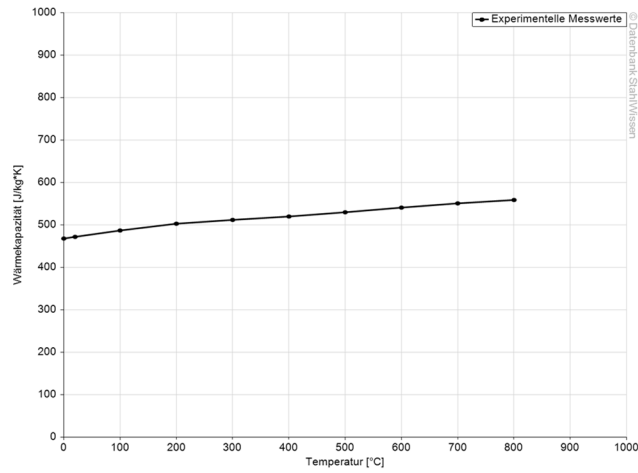


## Thermal conductivity diagram



## Thermal capacity diagram

Werkstoff: X5CrNi18-10, 1.4301



The data shown here is to be used only as an indication of the statistics, thus we accept no liability.  
 Diagramsare taken from Datenbank StahlWissen Dr. Sommer Werkstofftechnik  
 Issued: 2012

