

34CrMo4

All

General Information

SAE4130m is a low alloyed steel used in quenched and tempered condition. The nearest equivalents are 34CrMo4 in EN10083-3 or 4130 in ASTM A29 with some deviations. The material is delivered as rolled or annealed.

Chemical composition

Variant	Cast	Weldability		C %	Si %	Mn %	P %	S %	Cr %	Ni %	Mo %	Cu %
SAE4130m	CC	CEV 0.66 <sub>max</sub>	Min	0.27	0.15	0.60	-	-	0.60	-	0.15	-
		Pcm 0.41 <sub>max</sub>	Max	0.33	0.35	0.90	0.030	0.035	1.00	0.30	0.25	0.35

Mechanical Properties

Variant	Condition ⓘ	Format	Dimension [mm]	Hardness
SAE4130m	+AR	Round bar	14 < 70	< 260 HB
	+A	Round bar	14 < 70	< 223 HB

$RP_{0.2}$  \*  $R_{eh}$ , \*\*  $R_{el}$

Transformation  
temperatures

	Temperature °C
MS	552
AC1	737
AC3	808

## SUSTAINABILITY-ENVIRONMENTAL IMPACT DATA

At Ovako sustainability and reduction of our environmental impact is a major focus in everything we do.

Further information is found [here](#).

Steel works	Hofors	Smedjebacken	Imatra
CO <sub>2</sub> e/kg	120	62	76

To get the full picture of our products environmental impact we have to look at all of our CO<sub>2</sub> emission sources.

Not only the steel work Scope 1-2 itself, but all operations downstream in our production, heating and heat treatment furnaces etc (full scope 1-2) as well as all the emission from input material, eg. alloys, scope 3.

Steel Grade	Format	Condition ⓘ	Scope 1-3 (CO <sub>2</sub> e kg /1000 kg steel)	Climate compensated Net emission = Scope 3 (CO <sub>2</sub> e kg /1000 kg steel) Scope 1 - 2 = 0 (compensated)
4130 ASTM A29	Flat bar	+AR	421	201
SAE4130m	Flat bar	+AR	421	201

All above data are to be seen as typical values for the specified format and condition. Detailed information about your specific product please contact your sales contact.

### Other properties (typical values)

Youngs module (GPa)	Poisson´s ratio (-)	Shear module (GPa)	Density (kg/m <sup>3</sup> )
210	0.3	80	7800
Average CTE 20-300°C (µm/m°K)	Specific heat capacity 50/100°C (J/kg °K)	Thermal conductivity Ambient temperature (W/m°K)	Electrical resistivity Ambient temperature (µΩm)
12	460 - 480	40 - 45	0.20 - 0.25

### Contact us

Would you like to know more about our offers? Don´t hesitate to contact us:

Via e-mail: [info@ovako.com](mailto:info@ovako.com)

Via telephone: +46 8 622 1300

For more detailed information please visit <http://www.ovako.com/en/Contact-Ovako/>

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