

56SiCr7 All

General Information

Grade 56SiCr7 is a silicon spring steel with an addition of chromium for hardenability.

Similar designations

1.7106, 9084 - 54Si7

Chemical composition

Variant	Cast		C %	Si %	Mn %	P %	S %	Cr %
SB 9071	CC	Min	0.52	1.70	0.80	-	-	0.20
		Max	0.57	2.10	1.00	0.025	0.025	0.30
56SiCr7 EN10089	Std	Min	0.52	1.60	0.70	-	-	0.20
		Max	0.60	2.00	1.00	0.025	0.025	0.45

Mechanical Properties

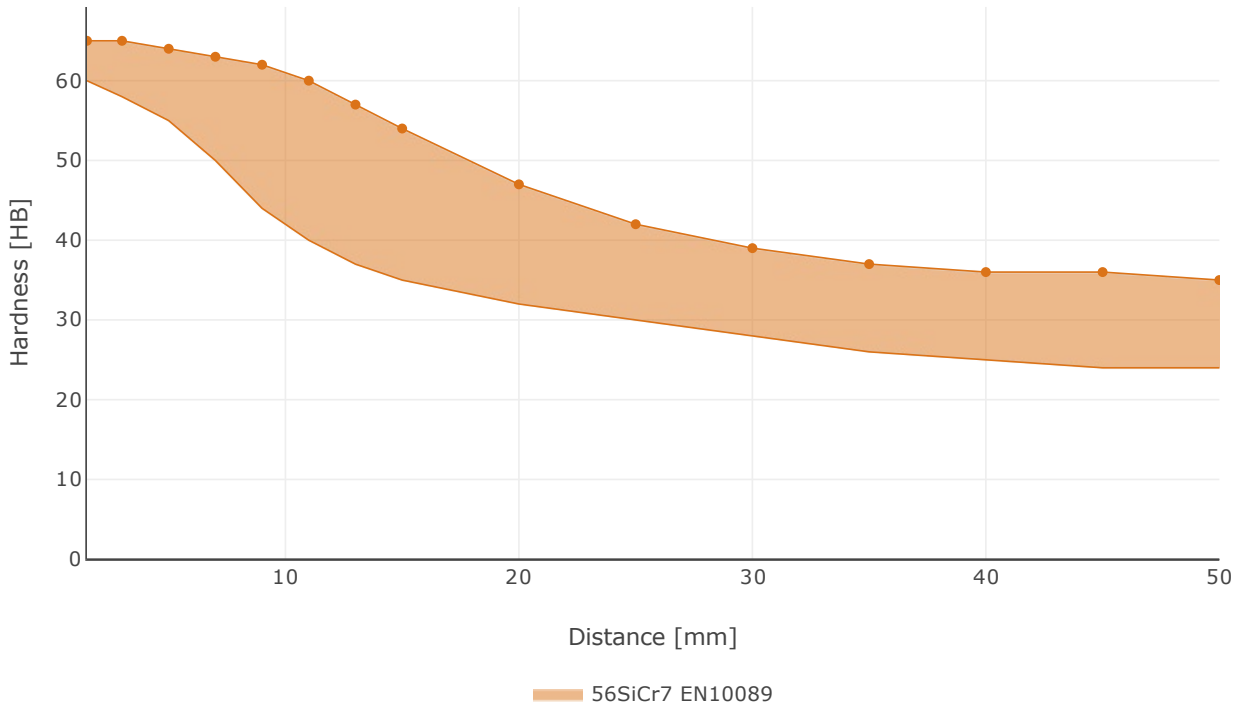
Variant	Condition ⁱ	Yield strength min [MPa]	Tensile strength [MPa]	Elongation A ₅ [%]
56SiCr7 EN10089	+QT	1350	1500-1800	6

*R_{p0.2} * R_{eh} ** R_{el}*

Transformation temperatures

	Temperature °C
MS	265
AC1	770
AC3	821

Hardenability



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](#).

In many international comparisons the crude steel Scope 1-2 emission is a key parameter, ie. the CO₂ emission from the steel works itself.

As of 1 January 2022 we carbon offset all our scope 1 and 2 volume shown below.

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

To get the full picture of our products environmental impact we have to look at all of our CO₂ 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 ^③	Scope 1-3 (CO ₂ e kg /1000 kg steel)	Climate compensated Net emission = Scope 3 (CO ₂ e kg /1000 kg steel) Scope 1 - 2 = 0 (compensated)
SB 9084	Round bar	+AR	445	203

As of 1 January 2022 we use carbon offset for all our scope 1- 2 emissions, so in practice the climate compensated data is the same as the full Scope 3 level.

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/m3)
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:

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

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