

90Cr2

All

General Information

Imatra CHA is designed for improved resistance against abrasive wear. This steel grade is mainly selected for fabrication of grinding rods and used in ore and rock processing. The core microstructure consists of fine lamellar perlite and thus offering good wear resistance in combination with sufficient toughness.

Chemical composition

Variant	Cast		C %	Si %	Mn %	P %	S %	Cr %
CHA, 5600	CC	Min	0.83	0.15	0.60	-	-	0.60
		Max	0.95	0.35	0.80	0.035	0.040	0.80

Mechanical Properties

Variant	Condition	Format	Dimension [mm]	Hardness
CHA, 5600	+AR	Round bar	40 < 120	300-400 HB

$Rp_{0.2}$ * R_{eh} , ** R_{el}

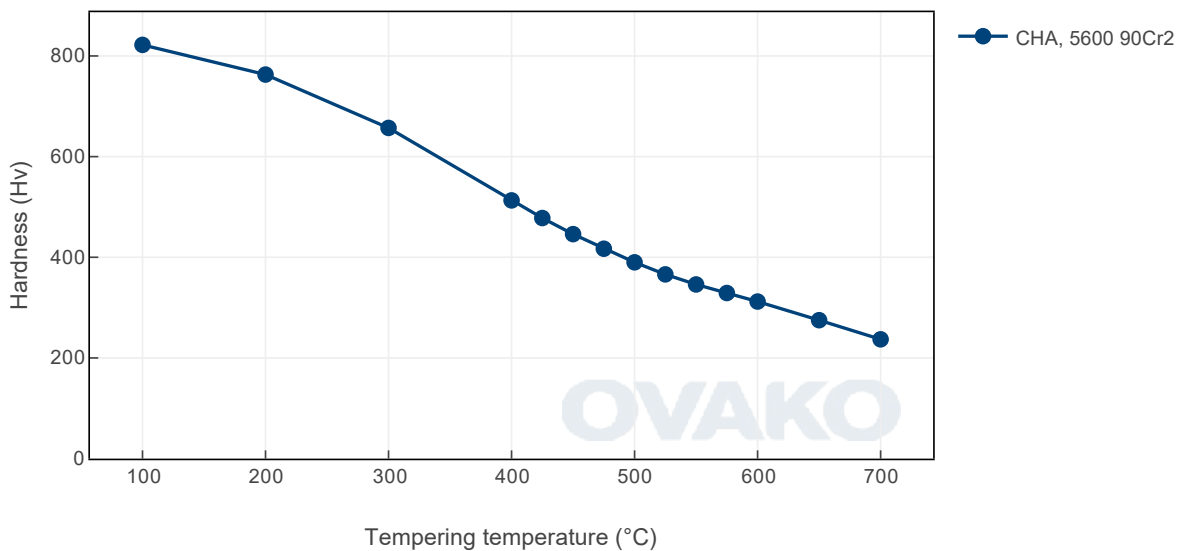
Transformation
temperatures

	Temperature °C
MS	250
AC1	750
AC3	750

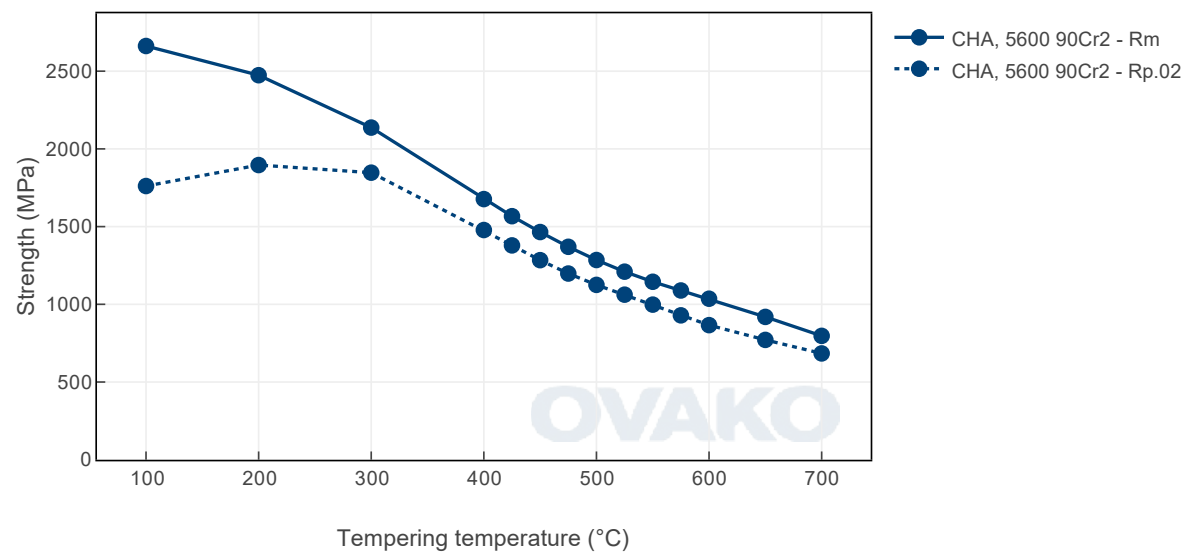
Heat Treatment Guide generated Graphs

The following graphs are generated from a theoretical model. For further info see the Heat treatment guide module. Select a specific grade version for individual display.

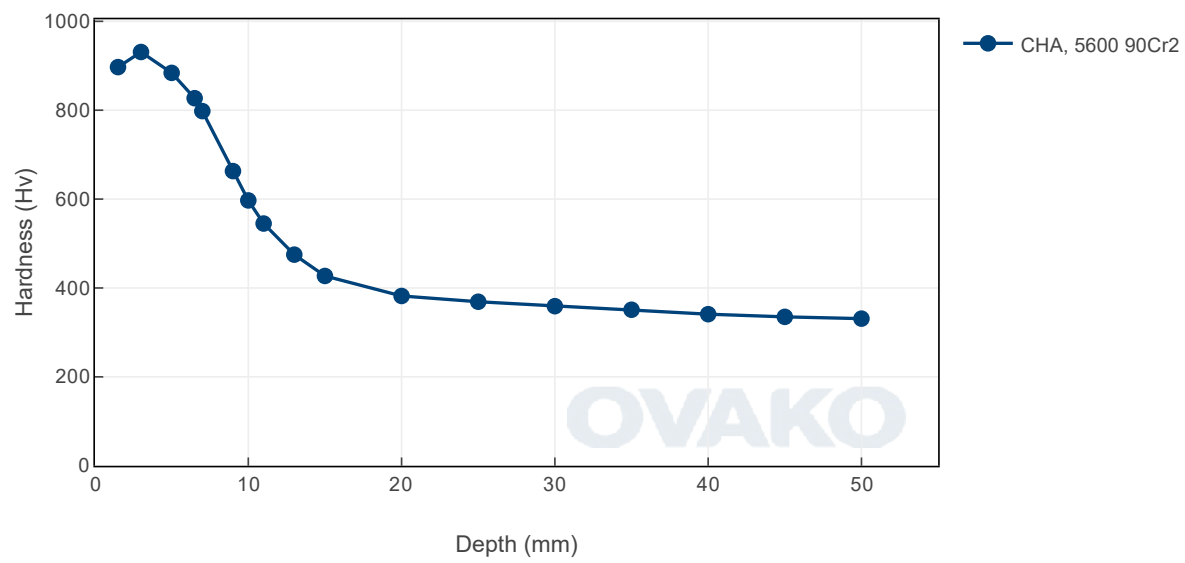
Tempering Diagram (hardness)



Tempering Diagram (strength)



Jominy



Other properties (typical values)

Youngs module (GPa)	Poisson´s ratio (-)	Shear module (GPa)	Density (kg/m ³)
210	0.3	80	7800
Average CTE 20-300°C (µm/m°C)	Specific heat capacity 50/100°C (J/kg °K)	Thermal conductivity Ambient temperature (W/m°C)	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

Via telephone: +46 8 622 1300

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

Disclaimer

The information in this document is for illustrative purposes only. The data and examples are only general recommendations and not a warranty or a guarantee. The suitability of a product for a specific application can be confirmed only by Ovako once given the actual conditions. The purchaser of an Ovako product has the responsibility to ascertain and control the applicability of the products before using them. Continuous development may necessitate changes in technical data without notice. This document is only valid for Ovako material. Other material, covering the same international specifications, does not necessarily comply with the properties presented in this document.