Material data sheet
Steel grade

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OVAKO

55NiCrMoV7 All

General Information

55 NiCr MoV7 is an alloyed Quench and Tempering steel used in many tool like applications where there is need for high hardness and mechanical strength combined with good toughness.

Similar designations

55 NCDV 7, L6, 1.2714, UNS T61206

Chemical composition

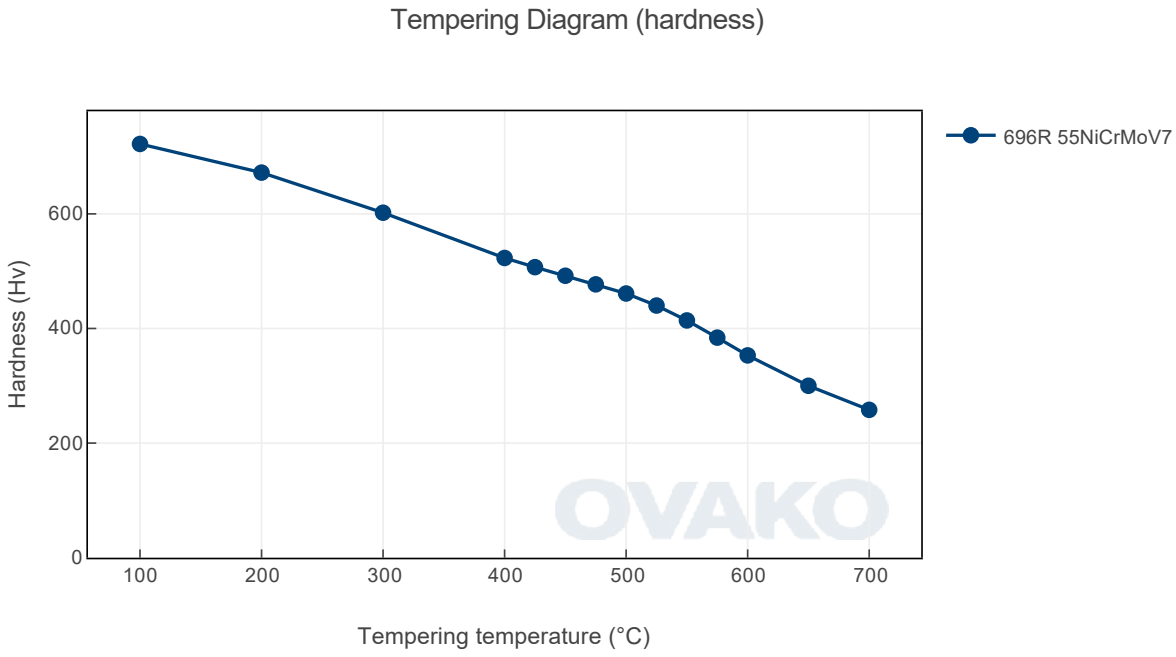
Variant	Cast	Weldability		C %	Si %	Mn %	P %	S %	Cr %	Ni %	Mo %	V %
696R	IC	CEV 1.71_{max}	Min	0.52	0.20	0.70	-	-	1.10	1.50	0.45	0.080
		Pcm 0.74_{max}	Max	0.56	0.40	0.90	0.025	0.005	1.30	1.80	0.55	0.120

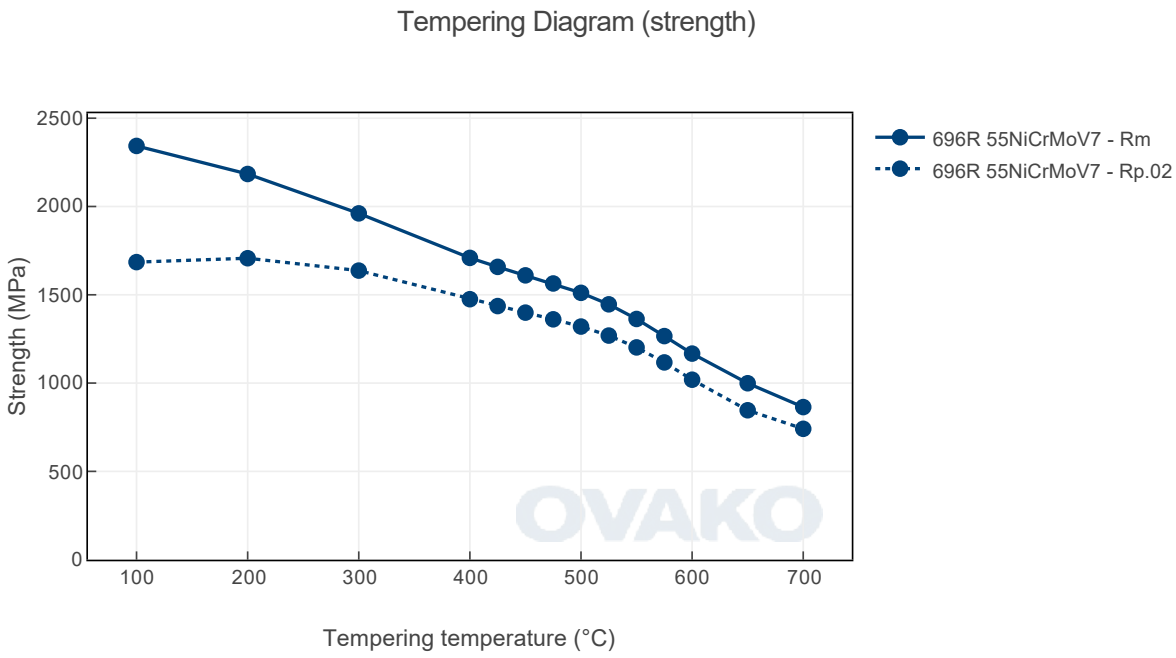
Transformation temperatures

	Temperature °C
MS	237
AC1	716
AC3	772

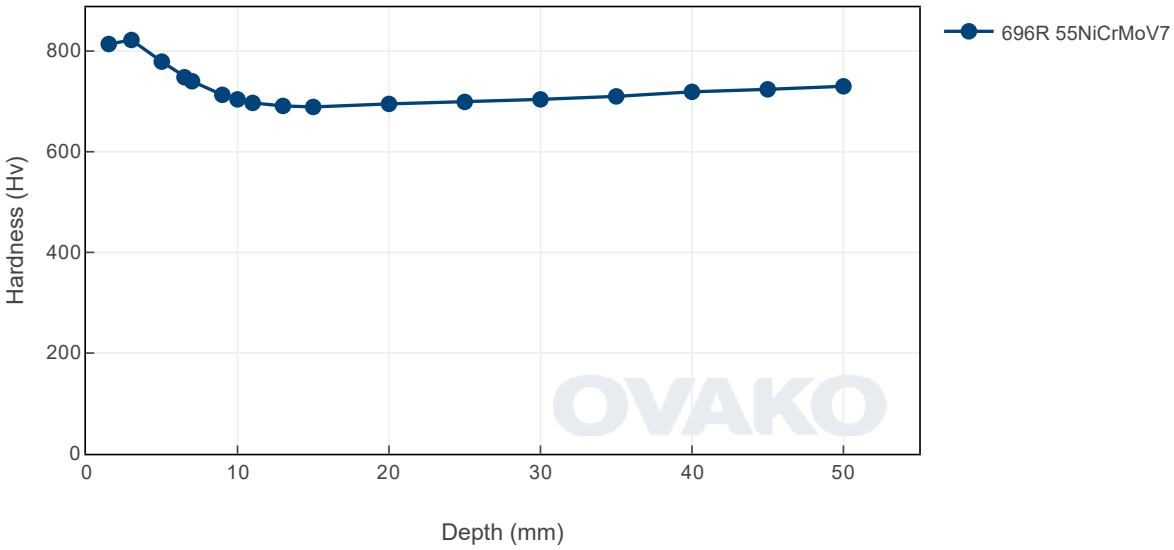
Heat Treatment Guide generated Graphs

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.





Jominy


Hardness (Hv)
800
600
400
200
0
0
10
20
30
40
50
Depth (mm)
696R 55NiCrMoV7
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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
CO2e/kg	120	62	76

To get the full picture of our products environmental impact we have to look at all of our CO_2 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 (CO2e kg /1000 kg steel)	Climate compensated Net emission = Scope 3 (CO2e kg /1000 kg steel) Scope 1 - 2 = 0 (compensated)
696R	Round bar	+AR	893	494
696R	Round bar	+N	899	498
696R	Tube,wall	+AR	932	531
696R	Tube,wall	+N	934	531

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 resistivityAmbient 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/