

## 16Mn5 All

### General Information

2720, also known as Hydax 15 has high sulfur content to further improve the machinability of M-steel. Mechanical properties fulfil the requirements of the standard EN 10025-2 steel grade S355J0.

### M-Steel®

The basis for the concept is that non-metallic inclusions are modified and controlled with calcium treatment in a way to minimize tool wear and to maximize chip control in machining operations. Our M-Steel treatment can be applied to any steel grade.

### Chemical composition

Variant	Cast	Di	Weldability		C %	Si %	Mn %	P %	S %	V %
2720	CC	0.8	CEV 0.43 <sub>max</sub>	Min	0.10	0.15	1.00	0.000	0.090	0.020
			Pcm 0.26 <sub>max</sub>	Max	0.20	0.55	1.60	0.035	0.150	0.090

## Mechanical Properties

Variant	Condition	Format	Dimension [mm]	Yield strength min [MPa]	Tensile strength [MPa]	Elongation A <sub>5</sub> [%]	Reduction of area Z <sub>min</sub> [%]	Hardness	Impact (ISO-V) strength <sub>min</sub>
2720	+AR	Round bar	25 < 40	345*	490-630	22	45	< 180 HB	-20 °C 27 J (long)
		Round bar	40 < 80	335*	490-630	21	45	< 180 HB	-20 °C 27 J (long)
		Round bar	80 < 90	315*	490-630	20	45	< 180 HB	-20 °C 27 J (long)
		Round bar	95 < 200	315	490-630	20	45	< 180 HB	0 °C 27 J (long)

*RP<sub>0.2</sub> \* R<sub>eh</sub> \*\* R<sub>el</sub>*

## Transformation temperatures

	Temperature °C
MS	417
AC1	692
AC3	842

## 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<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 (CO2e kg /1000 kg steel)	Climate compensated Net emission = Scope 3 (CO2e kg /1000 kg steel) Scope 1 - 2 = 0 (compensated)
Hydax 15, 2720	Round bar	+AR	791	265

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:

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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