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11SMn30 All

General Information

2715, also called Green Cut, has been developed to replace leaded free-cutting steels, when the customer is looking for an environmentally friendly alternative. High sulfur content combined with M-treatment gives superior machinability both with carbide and HSS tools.

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.

Similar designations

SS 1912, SS 1914, 1.0715

Chemical composition

Variant	Cast	Di	Weldability		С %	Si %	Mn %	Р%	s %
2715	СС	0.57	CEV 0.4 _{max}	Min	0.05	0.05	1.00	-	0.270
		0.57	Pcm 0.22 _{max}	Max	0.14	0.40	1.40	0.050	0.330

Mechanical Properties

Variant	Condition	Format	Dimension [mm]	Yield strength min [MPa]	Tensile strength [MPa]	Elongation A ₅	Hardness
2715	+AR	Round bar	25 < 200	270*	360-540	22	120-160 HB
	+C	Round bar	20 < 40	375*	460-710	8	160-210 HB
		Round bar	40 < 55	305*	400-650	9	150-200 HB
	+SH	Round bar	23 < 125	270*	360-540	22	120-160 HB

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

Transformation temperatures

Temperature °C		
MS	436	
AC1	715	
AC3	843	

GreenCut® Turning with carbide tool

Seco CNMG 120408 M3 TP1000 $a = 2.5 \, \text{mm}$ f = 0.4 mm/r1200 Without coolant 1000 850 800 ■ GreenCut® m/min 600 9SMnPb28 400 350 290 200 0 v15 m/min v30 m/min

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	_		Climate compensated Net emission = Scope 3 (CO2e kg /1000 kg steel) Scope 1 - 2 = 0 (compensated)
Green Cut, 2715	Round bar	+AR	528	226

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/

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