

STEEL GRADE

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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 | | C % | Si % | Mn % | P % | S % |
|---------|------|------|-------------------------|-----|------|------|------|-------|-------|
| 2715 | CC | 0.57 | CEV 0.4 _{max} | Min | 0.05 | 0.05 | 1.00 | - | 0.270 |
| | | | 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 |

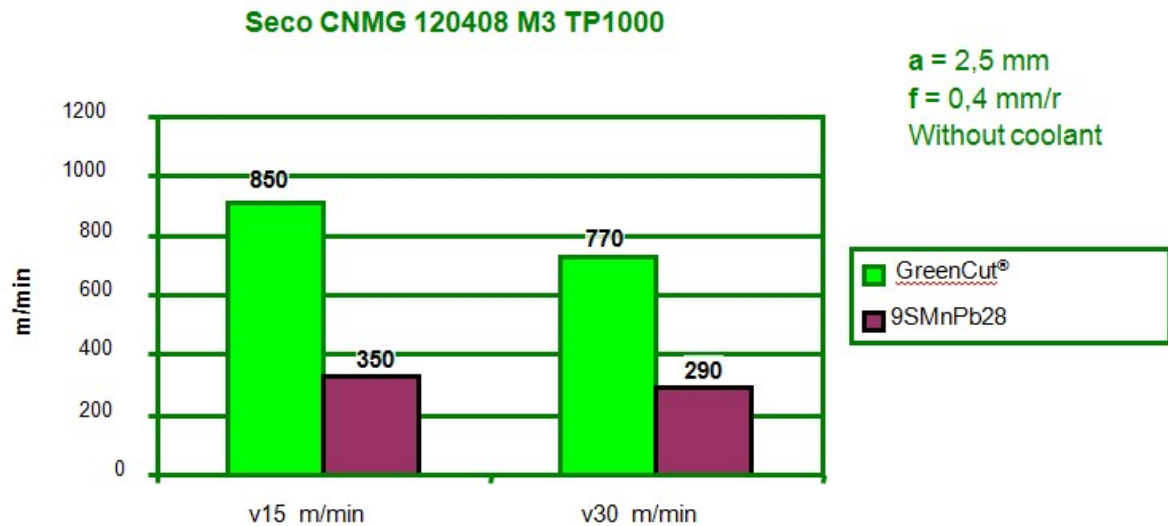
*RP_{0.2} * R_{eh} ** R_{el}*

Transformation temperatures

| | Temperature °C |
|-----|----------------|
| MS | 436 |
| AC1 | 715 |
| AC3 | 843 |

Turning with carbide tool

GreenCut® Turning with carbide tool



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 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 | Scope 1-3 (CO2e kg /1000 kg steel) |
|-----------------|-----------|-----------|------------------------------------|
| Green Cut, 2715 | Round bar | +AR | 528 |

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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Via telephone: +46 8 622 1300

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

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