

30MnVS6 All

General Information

30MnVS6 is a micro alloyed cold heading steel which is used for example for short and longshaft ball points, threaded and heavy duty anchor bolts

Similar designations

9830 - 28MnV6

Chemical composition

| Variant | Cast | Weldability | | C% | Si% | Mn% | P% | S% | Cr% | Ni% | V% | Cu% | N% |
|----------------------|------|-------------------------|-----|------|------|------|-------|-------|------|------|-------|------|--------|
| 9830 | CC | CEV 0.64 _{max} | Min | 0.26 | 0.35 | 1.40 | - | - | - | - | 0.080 | - | 0.0100 |
| | | Pcm 0.41 _{max} | Max | 0.30 | 0.55 | 1.60 | 0.025 | 0.035 | 0.25 | 0.30 | 0.200 | 0.35 | 0.0200 |
| 30MnVS6 EN10267:1998 | CC | CEV 0.65 _{max} | Min | 0.26 | 0.15 | 1.20 | - | 0.020 | - | - | 0.080 | - | 0.0100 |
| | | Pcm 0.43 _{max} | Max | 0.33 | 0.80 | 1.60 | 0.025 | 0.060 | 0.30 | - | 0.200 | - | 0.0200 |

Mechanical Properties

| Variant | Condition ⓘ | Format | Yield strength min [MPa] | Tensile strength [MPa] | Elongation A ₅ [%] | Reduction of area Z _{min} [%] | Hardness |
|-------------------------|-------------|-------------|--------------------------|------------------------|-------------------------------|--|------------|
| 9830 | +AR | Round bar | 600** | 850-1000 | 14 | - | 230-310 HB |
| 30MnVS6 EN10267:1998 | +AR | All formats | 450* | 700-900 | 14 | 30 | - |

*R_{p0.2} * R_{eh}, ** R_{el}*

Transformation temperatures

| | Temperature °C |
|-----|----------------|
| MS | 370 |
| AC1 | 720 |
| AC3 | 800 |

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](#).

In many international comparisons the crude steel Scope 1-2 emission is a key parameter, ie. the CO₂ emission from the steel works itself.

As of 1 January 2022 we carbon offset all our scope 1 and 2 volume shown below.

| Steel works | Hofors | Smedjebacken | Imatra |
|----------------------|--------|--------------|--------|
| CO ₂ e/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 (CO ₂ e kg /1000 kg steel) | Climate compensated Net emission = Scope 3 (CO ₂ e kg /1000 kg steel) Scope 1 - 2 = 0 (compensated) |
|-------------|----------|-----------|---|--|
| 9830 | Flat bar | +AR | 572 | 198 |

As of 1 January 2022 we use carbon offset for all our scope 1- 2 emissions, so in practice the climate compensated data is the same as the full Scope 3 level.

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/m ³) |
|-------------------------------|--|--|--|
| 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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For more detailed information please visit <http://www.ovako.com/en/Contact-Ovako/>

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