

11SMn30

Product information for hot-rolled precision strip



thyssenkrupp

Version 1/18

Free-cutting steel

Free-cutting steel made from precision strip is used in particular in the production of keys, levers and pins. Depending on the intended purpose, lead-alloy variants of these steels can also be supplied. Free-cutting steels are characterized by their outstanding machinability. Close analysis ranges tailored to specific purposes and precisely controlled rolling parameters guarantee consistent and outstanding processability. We supply free-cutting steels in accordance with DIN EN 10277-3.

Hohenlimburg precision strip:

- is used in virtually all industry sectors.
- offers close thickness tolerances similar to cold-rolled strip, optimum surface finishes and consistent material properties over the entire strip length and width.
- is characterized by its symmetrical strip profiles and mill edges.
- is the sum of all the experience we have gained in more than 100 years of manufacturing and processing steel.

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Technical features

General structural steel

| | |
|-------------------------|--|
| Material number: | 1.0715 |
| Material name: | 11SMn30 |
| Delivery specification: | based on DIN EN 10277-3 |
| Application: | Steels for demanding parts in machinery and steel construction |

Chemical composition

| Ladle analysis mass percentages | C [%] | Si [%] | Mn [%] | P [%] | S [%] | Pb [%]* |
|---------------------------------|-------|--------|--------|-------|-------|---------|
| min. | – | – | 0.90 | – | 0.27 | – |
| max. | 0.14 | 0.05 | 1.25 | 0.03 | 0.33 | – |

Further special analyses available * Lead-alloyed variant available

Mechanical properties

| Longitudinal to rolling direction | Tensile strength R_m [MPa] | Elongation A_5 [%] | A_{80} [%] |
|-----------------------------------|---------------------------------|-------------------------|--------------|
| Rolled condition | Ø 450 | min. 22 | min. 18 |

General thickness tolerances

| Strip thickness [mm] | 1.5–2.54 | 2.55–4.03 | 4.04–6.03 | 6.04–8.03 | 8.04–9.03 | 9.04–11.03 | 11.04–14.03 | 14.04–16.00 |
|--------------------------|----------|-----------|-----------|-----------|-----------|------------|-------------|-------------|
| Standard tolerances [mm] | ± 0.04 | ± 0.04 | ± 0.05 | ± 0.055 | ± 0.06 | ± 0.07 | ± 0.08 | ± 0.10 |
| Special tolerances [mm] | ± 0.03 | ± 0.035 | ± 0.04 | ± 0.045 | ± 0.05 | ± 0.055 | ± 0.06 | ± 0.07 |

Possible delivery options

| Options | Mill edge (NK) Cut edge (GK) | pickled unpickled | | slit | trimmed | cut to length |
|---------|---------------------------------|-------------------|---|------|---------|---------------|
| | 11SMnPb30 | NK or GK | ✓ | or ✓ | ✓ | ✓ |

General delivery options

| | |
|----------------------|-----------------------------------|
| Coil inner diameter: | standard 508 mm / optional 610 mm |
| Coil outer diameter: | max. 1,890 mm |
| Coil weight: | max. 20.5 kg/mm strip width |
| Strip width: | max. 720 mm |
| Strip thickness: | 1.5 – 16 mm |