

Precision Steel

precidur[®] S 235 JR/J0/J2

Product information for hot-rolled precision strip made in Hohenlimburg



thyssenkrupp

Version 11/24

Structural steel

General structural steels are standardized in accordance with DIN EN 10025. Through appropriate temperature control during hot rolling BU Precision Steel supplies hot-rolled strip with a carbon content of less than 0.20% with a uniform, fine microstructure.

By ensuring very low sulfur contents and realizing other measures during steel production it is possible to supply general structural steels with good cold formability (flanging, roll forming).

precidur[®]

- 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: | 1.0038 / 1.0114 / 1.0117 |
| Material name: | S235JR / S235J0 / S235J2 |
| Proprietary brand: | precidur® S235JR/J0/J2 |
| Old name: | St 37-2 |
| Delivery specification: | DIN EN 10025-2 |
| Application: | Steels for general mechanical engineering and steel structures with physical properties in accordance with DIN EN 10025-2. |

Chemical composition

| Ladle analysis mass percentages | C [%] | Si [%] | Mn [%] | P [%] | S [%] | N [%] | Cu [%] | Al [%] |
|---------------------------------|-------|--------|--------|-------|-------|-------|--------|--------|
| min. | 0.05 | - | 0.20 | - | - | - | - | 0.015 |
| max. | 0.14 | 0.10 | 0.80 | 0.025 | 0.015 | 0.010 | 0.20 | 0.080 |

Further special analyses available

Mechanical properties

| Longitudinal to rolling direction | Yield strength R _{eH} [MPa] | Tensile strength R _m [MPa] | Elongation A ₅ [%] | A ₈₀ [%] |
|-----------------------------------|-----------------------------------------|------------------------------------------|----------------------------------|---------------------|
| Rolled condition* | min. 235 | 360 - 510 | min . 26 | min. 21 |

* The mechanical characteristics shown match the „JR“ variant (EN10025-2) in thickness ≥ 3.0 mm.
Restricted mechanical property ranges can be agreed on request.

Possible delivery options

| Options | Mill edge (NK) Cut edge (GK) | pickled | | unpickled | slit | trimmed | Cut to length |
|------------------|---------------------------------|---------|----|-----------|------|---------|---------------|
| precidur® S235JR | NK or GK | ✓ | or | ✓ | ✓ | ✓ | ✓ |

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 |

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 |

* May be subjected to restrictions.

Please contact our sales/technical customer advice team for detailed information.