

S700MC

EN 10149-2

S700MC

High Strength steel from hot rolled coil.

S700MC is a micro-alloyed, fine-grained, thermo-mechanically rolled steel for cold forming.

S700MC combines a minimum yield strength of 700 MPa with high tensile strength and good impact toughness.

S700MC offers outstanding cold forming properties and excellent weldability.



The high yield strength enables improved load bearing capacity in combination with weight reduction of components and/or structures.

The use of S700MC opens possibilities for advanced, innovative design with reduced steel thickness.

The excellent formability and weldability of S700MC improves overall efficiency in processing.

Chemical composition (EN 10149-2)

| | C | Mn | Si | P | S | Al | Nb | V | Ti | Mo | B |
|--------|------|------|-------------------|-------|-------|-------|------|------|------|------|-------|
| % min. | - | - | - | - | - | 0.015 | - | - | - | - | - |
| % max. | 0.12 | 2,10 | 0,60 ¹ | 0.025 | 0.015 | 0.090 | 0.09 | 0.20 | 0.22 | 0.50 | 0.005 |

¹ if hot-dip-galvanizing is required, please check the specific Si-content before ordering.

Mechanical properties (EN 10149-2) thickness $\geq 3,0$ mm

| | Yield strength | Tensile strength | Elongation* | Inner bending |
|------|-----------------------------|--------------------------|---------------------------|---|
| | R_{eH} (MPa) ¹ | R_m (MPa) ¹ | A_{50} (%) ¹ | radius (90°) ² |
| min. | 700 | 750 | 12 | 2.0 ³ - 2.5 x t ⁴ |
| max. | - | 950 | - | - |

¹ tested in longitudinal direction; ² in transverse direction; ³ thickness $3 < t \leq 6$ mm; ⁴ thickness $t \geq 6$ mm.



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Reduced steel thickness translates immediately into increased payload and reduced fuel consumption.

Many applications in the (heavy) transport sector may enjoy the economic benefits.

Upgrading lower yield strength steels to S700MC supports you in your ambitions to reduce CO² footprint.



Impact strength

EN 10149-2 does not include min. impact energy values. However, ≥ 40 J at -20 °C or ≥ 27 J at -40 °C are common. Testing is optional. Please express your wish when requesting a quote.

Delivery program from stock

| | |
|-----------|---|
| Thickness | 3 - 20 mm. |
| Width | 1000 - 2000* mm. * depending on thickness |
| Length | 2000 - 16000 mm. |
| Finish | Black / Pickled & Oiled |

A wide range of application

possibilities for S700MC in many sectors include:

Truck- and trailer chassis; tippers; refuse trucks; aerial platforms; containers; truck-mounted- and mobile crane booms; concrete mixers; concrete pump booms; automotive safety parts etc.

Tolerances

Thickness, width, length, shape, and flatness according to EN 10051.

Tighter tolerances upon request.

Certification

A mill material certificate according to EN 10304:3.1 comes as default with deliveries of S700MC.

Other certificates are available upon request.

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