



SZBS800+Z (HR660Y760T-CP*)

Multi-phase steel: Bainitic grade

Materialinformationsblatt (MIB)

| | |
|-------------------|---|
| Werkstoffnummer | - |
| Festigkeitsklasse | D |
| * VDA 239-100 | |

General informations

The steel grade SZBS800 is characterized by a very high yield strength and tensile strength of more than 800 MPa with sufficiently high elongation for cold forming processes.

In addition to the conventional hot strip design, hot strip grade SZBS800 can also be produced with the surface coatings ZM (StronSal®), Z (hot-dip galvanized) and ZE (electrolytically galvanized).

Due to the chemical composition of the carrier material and the coatings, good weldability is ensured.

The characteristic values correspond to a HR660Y760T-CP with the exception of the BH₂ value.

Chemical composition¹⁾

(in percent by weight)

| | min. in % | max. in % |
|---------|-----------|-----------|
| C | | 0.18 |
| Si | | 1.00 |
| Mn | | 2.20 |
| P | | 0.050 |
| S | | 0.010 |
| Al | 0.015 | 1.20 |
| B | | 0.005 |
| Cu | | 0.20 |
| Ti + Nb | | 0.25 |
| Cr + Mo | | 1.00 |

1) Heat analysis



Mechanical properties²⁾

| Testing direction | Yield strength R _{p0.2} in MPa |
|-------------------|---|
| longitudinal | 660 – 820 |
| transversal | ≥ 680 |

| Testing direction | Tensile strength R _m in MPa |
|-------------------|--|
| longitudinal | 760 – 960 |
| transversal | 800 – 980 |

| Testing direction | Total elongation A ₈₀ in % |
|-------------------|---------------------------------------|
| longitudinal | ≥ 10 |
| transversal | ≥ 10 |

| Testing direction | BH ₂ value ³⁾ |
|-------------------|-------------------------------------|
| longitudinal | ≥ 30 |

2) The mechanical properties are in the testing directions longitudinal and transversal for information. Please select the desired testing direction (longitudinal or transversal) when ordering.

3) Salzgitter Flachstahl does not confirm the BH₂ value according to VDA 239-100.

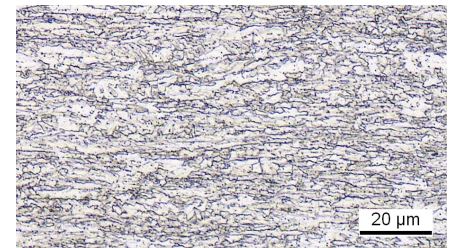
Available dimensions

| Thickness in mm | Width in mm |
|-----------------|-------------|
| 2.00 – 3.50 | 900 – 1,300 |

Thicknesses ≤ 2 mm as well as widths ≥ 1,300 mm up on request.

Microstructure

The microstructure of SZBS800 typically consists of bainite. It may contain minor amounts of other phases (eg martensite, ferrite).





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Application examples

SZBS800+Z material is used in both the body and the chassis.

In the vehicle body, the material is mainly used for safety-relevant components such as reinforcements and support structures.

Due to its high fatigue strength, SZBS800+Z is particularly well suited for use in chassis parts subject to high dynamic stress. At the same time, these parts benefit from the weight-saving potential due to the high strength of the material.

Typical application examples here are control arms and trailing arms as well as handlebars.



Control arm in automotive engineering



Above: Handlebars

Below: transverse control arm



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**SALZGITTER
FLACHSTAHL**
A Member of the Salzgitter Group

Salzgitter Flachstahl GmbH / Eisenhüttenstraße 99 / 38239 Salzgitter
PHONE +49(0)53 41 21 28 90 / FAX +49(0)53 41 21 85 36 / MAIL flachstahl@salzgitter-ag.de
www.salzgitter-flachstahl.de