

SZBS800

Bainitic grade

Material no.	–
SZFG material data sheet	
Tensile strength class	D

Usage

The thermo-mechanically rolled, micro-alloyed steel grade SZBS800 features a high tensile strength of ≥ 800 MPa with sufficient elongation for forming applications, such as rectangular tubes and profiles. Due to its chemical composition, it offers good weldability.

Chemical composition

(in percent by weight)

	min.	max.
C		0,110%
Si		0,500%
Mn		2,000%
P		0,020%
S		0,010%
Al	0,015%	
B		0,004%

In addition, the elements Nb, V and Ti are each alloyed either individually or in combination ($Nb + V + Ti \leq 0,200\%$).

Mechanical properties ¹⁾

Nom. thick. e	Yield strength R_{eH}
	≥ 680 MPa

Nom. thick. e	Tensile strength R_m
	800 – 980 MPa

Nom. thick. e	Total elongation $A^{2)}$
$2 \leq e < 3$ mm	≥ 10 %
$3 \leq e \leq 8$ mm	≥ 12 %

1) The tensile test values given in the table apply to transverse samples.

2) It applies to nominal thickness e:
e < 3 mm: A_{80}
e \geq 3 mm: A_5

Application examples

Typical applications for making maximum use of the great tensile strength, at the same time as minimising the weight of the component, include mobile crane construction, longitudinal beams and cross members in trucks and trailers, safety components in passenger cars and wagon building.



Seat-height-adjustment

Available dimensions

Thickness in mm	Width in mm
2,00 – 3,99	900 – 1300
4,00 – 8,00	900 – 1500

Microstructure

