SZBS800

Baintic 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 rectangluar tubes and profiles. Due to its chemical composition, it offers good weldability.

Chemical composition[1)]

(in percent by weight)

	min.	max.
C		0.11 %
Si		0.50 %
Mn		2.00 %
P		0.02 %
S		0.01 %
Al	0.015 %	
B		0.004 %

1) Heat analysis

In addition, the elements Nb, V and Ti are each alloyed either individually or in combination (Nb + V + Ti ≤ 0.20 %).

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)]
1.80 ≤ e < 3.00 mm	≥ 10 %
3.01 ≤ e ≤ 8.00 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 ≥ 3 mm: A_5

Available dimensions

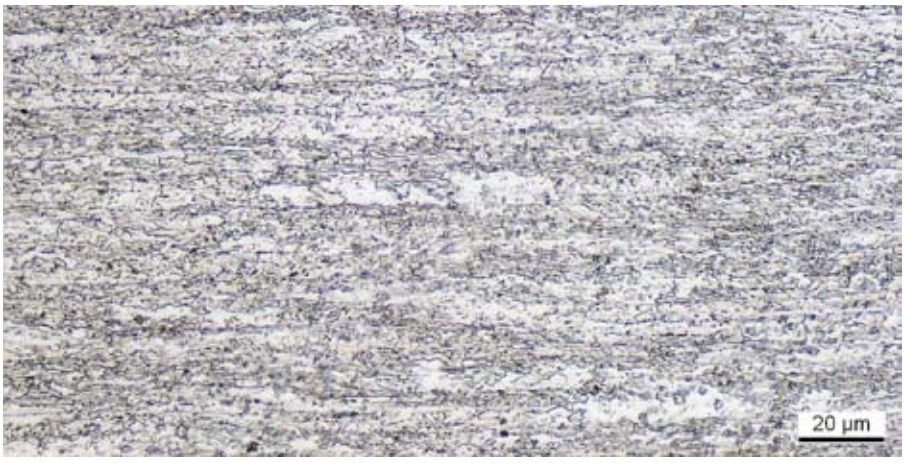
Thickness in mm	Width in mm
1.80 –3.99	900 –1,250
4.00 –8.00	900 –1,500

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 menbers in trucks an d trailers, safety components in passenger cars and wagon building.

Belt-height-adjustment

Microstructure



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