

BILSTEIN ZE 600



Mechanical properties

The BILSTEIN ZE-Grades show mechanical properties which by far exceed the European standards EN 10268 for cold-rolled and EN 10149-2 for hotrolled products. Compared to those standards, the BILSTEIN ZE-Grades show the following, much tighter ranges of mechanicals.

BILSTEIN ZE 600			
Properties ⁽¹⁾	Rp _{0.2} [MPa]	Rm [MPa]	A ₈₀ [%]
Typical values	635	680	12.4
Guaranteed values	≥ 600	650 – 730	≥ 11.0

Values acc. to EN 10149-2			
Properties ⁽¹⁾	Rp _{0.2} [MPa]	Rm [MPa]	A ₈₀ [%]
Guaranteed values	≥ 600	650 – 820	≥ 11

⁽¹⁾ in rolling direction

Chemical composition

BILSTEIN ZE 600 (weight percent)								
Element	C	Si	Mn	P	S	Al ⁽²⁾	Nb	Ti
Typical	0.081	0.050	0.650	0.010	0.002	0.039	0.046	0.016
Guaranteed ⁽³⁾	0.100	0.500	1.600	0.020	0.005	0.030	0.060	0.100

⁽²⁾ min. content

⁽³⁾ max. content

Tolerances BILSTEIN ZE 600

The BILSTEIN ZE-Grades show cold rolled steel strip specific, tight thickness tolerances within EN 10140. Tighter tolerances can be agreed upon.

Thickness	Tolerance ⁽⁴⁾
0.40 ≤ 1.00 mm	+/- 0.030 mm
> 1.00 ≤ 2.00 mm	+/- 0.035 mm
> 2.00 ≤ 2.50 mm	+/- 0.040 mm
> 2.50 ≤ 3.00 mm	+/- 0.045 mm
> 3.00 ≤ 4.00 mm	+/- 0.050 mm
> 4.00 ≤ 5.00 mm	+/- 0.055 mm

⁽⁴⁾ Measuring point: 10 mm from strip edge

Width tolerances according to EN 10140.

Coil weights and packaging

Specific coil weights can be ordered in the range from 2 to 20 kg/mm of strip width. Cut to length from 500 to 5,000 mm. For coils "eye to sky", packaging is on wooden timbers or wooden timber frames. Individual packaging can be agreed upon.

Further properties

Weldability

The BILSTEIN ZE-Grades can be welded with all common welding processes. However, within the heat impact zone a reduction in mechanicals may occur. Most suitable are the spot and laser welding processes, where this reduction was not observed.

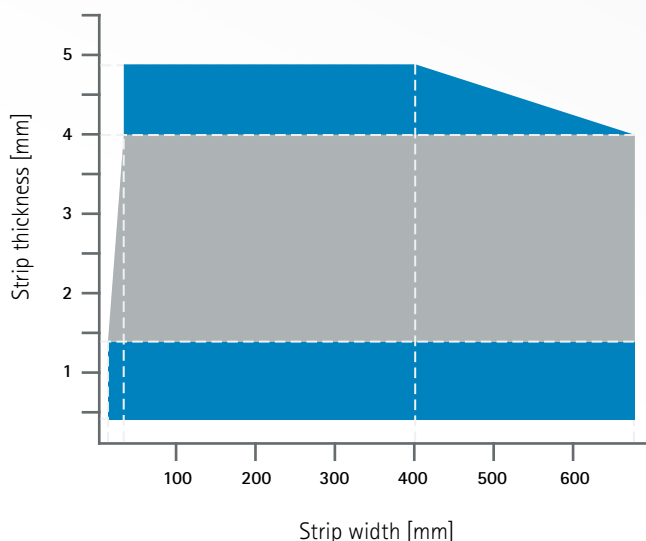
Surface quality

By default, the BILSTEIN ZE-Grades are delivered with surface type MA and surface finish RM (Ra 0.6 up to 1.8 µm). Surface finishes can be selected in accordance to EN 10139 (exception: RN). Other surface types and finishes can be individually agreed upon. In addition, the surface roughness can be specified to suit forming and lubricant requirements.

Coating

The BILSTEIN ZE-Grades are suitable for wet and powder coatings as well as electro metal coatings.

Dimensions



 available  on request