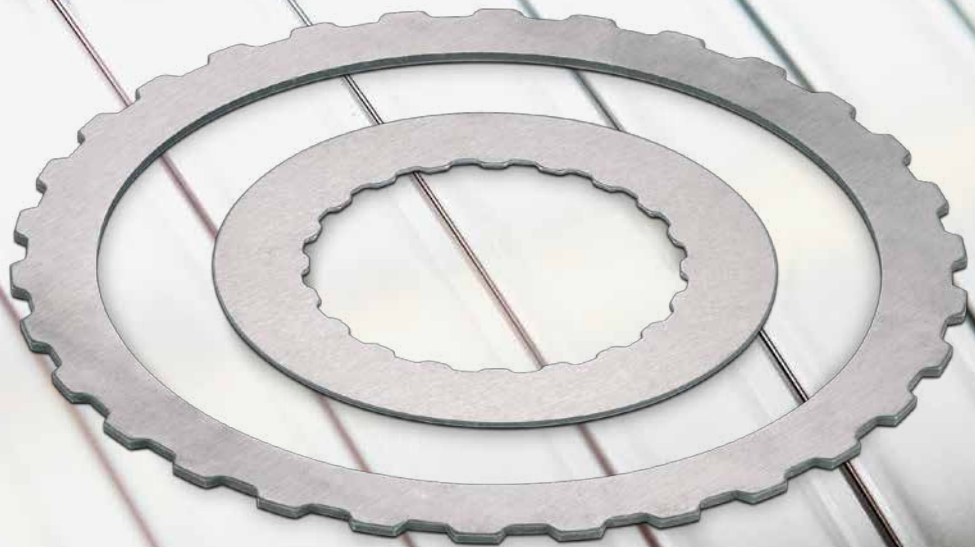


# BILSTEIN ZE 1000



## 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 1000			
Properties <sup>(1)</sup>	Rp <sub>0.2</sub> [MPa]	Rm [MPa]	A <sub>80</sub> [%]
Typical values	1,040	1,053	5.6
Guaranteed values	≥ 1,000	1,030 – 1,130	≥ 5.0

Values acc. to EN 10149-2			
Properties <sup>(1)</sup>	Rp <sub>0.2</sub> [MPa]	Rm [MPa]	A <sub>80</sub> [%]
Guaranteed values	not within standard		

<sup>(1)</sup> in rolling direction

## Chemical composition

BILSTEIN ZE 1000 (weight percent)								
Element	C	Si	Mn	P	S	Al <sup>(2)</sup>	Nb	Ti
Typical	0.054	0.260	0.820	0.011	0.001	0.070	0.034	0.092
Guaranteed <sup>(3)</sup>	0.100	0.500	1.600	0.020	0.005	0.030	0.060	0.100

<sup>(2)</sup> min. content

<sup>(3)</sup> max. content

## Tolerances BILSTEIN ZE 1000

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

Thickness	Tolerance <sup>(4)</sup>
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

<sup>(4)</sup> 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.

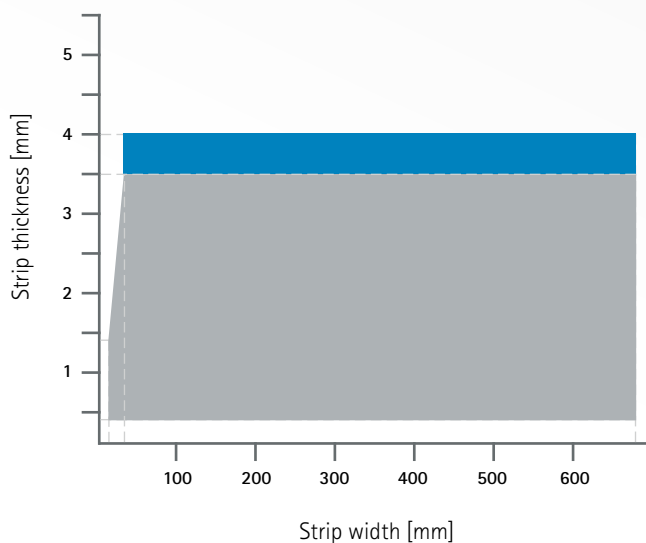
### Surface quality

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