

## Hardened and tempered steel strip with various microstructures

Through a combination of cold rolling and heat treatment, we can precisely adjust the martensitic, bainitic, or sorbitic microstructure of the steel strip. In this context, we create exactly those properties that our customers require in a multi-stage process via the temperature curve and the conversion time.

Hardened and tempered steel strip from Waelzholz is the right choice whenever materials with extreme hardness, homogeneity, elasticity, or spring tension are required. Martensite strip, bainite strip, and SORBITEX® textured strip – each with their different microstructures – are perfect for a wide range of uses, including heavy-duty applications. The hardened and tempered material is used, for example, in spring rails for windshield wipers, retaining rings, retaining clips, and retractor springs.

### Martensitic hardened and tempered steel strip: precision with high functional hardness

EN grade	SAE grade	Tensile strength in MPa	Yield/tensile ratio in %
C45E	1045	1,000 - 1,600	> 90
C55S	1055	1,150 - 1,700	> 90
C60S	1060	1,150 - 1,750	> 90
C67S	1070	1,200 - 1,900	> 90
C75S	1078	1,200 - 1,900	> 90
C100S	1095	1,200 - 2,100	> 90
56Si7	9255	1,000 - 1,700	> 90

### Bainitic hardened and tempered steel strip: high tensile strength and good bendability

EN grade	SAE grade	Tensile strength in MPa	Yield/tensile ratio in %
PT90	1335	800 - 1,000	80 - 85
PT100	1045	900 - 1,100	80 - 85
PT120	1055	1,100 - 1,300	80 - 85
PT140	1078	1,300 - 1,500	80 - 85

### SORBITEX® textured steel strip for maximum fatigue strength

EN grade	SAE grade	Tensile strength in MPa	Yield/tensile ratio in %
SORBITEX® 75	SORBITEX® 75	1,800 - 2,200	> 96
SORBITEX® 80	SORBITEX® 80	2,250 - 2,350	> 96
SORBITEX® 90	SORBITEX® 90	2,350 - 2,500	> 96



Retaining ring  
(Martensite)



Fastening clip  
(Bainite)



Retractor Spring  
(SORBITEX®)

↗ For further information visit [waelzholz.com/martensite](http://waelzholz.com/martensite)

↗ For further information visit [waelzholz.com/bainite](http://waelzholz.com/bainite)

↗ For further information visit [waelzholz.com/sorbite](http://waelzholz.com/sorbite)

### Contact

In case of individual requirements, please don't hesitate to contact us: [info@waelzholz.com](mailto:info@waelzholz.com)