Quenched and tempered steels

Standard	DIN EN 10132	
Grades	Tempering steels: C22E - C60E, 25CrMo4 - 50CrMo4 Boron-alloyed steels: 27MnCrB5-2 and similar Spring steels: C55S - C100S, 75Cr1 - 95Cr1, 51CrV4 - 80CrV2, 68CrNiMo33, 75Ni8, 102Cr6	
Chemical cast analysis	Based on DIN EN 10132 and also special analysis	
Strip thicknesses [mm] (1)	Martensite: 0.30 - 5.10	
Strip widths [mm] (2) (3)	Martensite: 35 - 720	
Delivery conditions	QT - martensitic quenched and tempered	
Mechanical properties (1) **Hardness range**	Martensite:	Spring steels: Hardness 30 - 54 HRC Tempering steels: Hardness 30 - 48 HRC Boron-alloyed steels: Hardness 30 - 44 HRC
Surfaces (appearance + finish)	Bright, grey-blue, polished and yellow tempered, brush-polished	
Edge conditions	GK - slit edges, SK - special edges (machined or edge-rolled)	
Dimensional tolerances	General tolerances: acc. to DIN EN 10140 and special agreement Strip width tolerances: acc. to special agreement only	
Flatness	Max. 1.0 µm/mm width for martensitic tempered spring steels with C-contents of 0.67 - 1.00 %, Max. 1.5 - 2.0 µm/mm width for boron-alloyed grades and tempering steels.	
Delivery forms	Coils and cut to lengths	
Cut to length dimensions (2)	Width 80 - 720 mm	Length: 400 - 4000 mm
Specialities	Hardening of low carbon steel with very good flatness values. Hardening of extreme cross-sections with especially wide and thick dimensions. Hardening in lead free process upon agreement.	

(1) Variations depending on grade and dimension to be taken into account (2) Further dimensions upon agreement

(3) Strip width < 35 mm only available in slit-after-hardening condition in strip thickness ≤ 0.80 mm