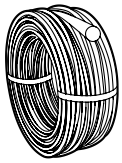
Westig® 1.2833EB Datasheet
Precision Wire

Zapp is Certified to ISO 9001



Westig® 1.2833EB
DIN 100V1, AFNOR 100V2, AISI W210, BS BW2,
JIS SKS43

The grade Westig 1.2833EB is mainly used in the segment of industrial needles. In the annealed/ drawn condition this grade possesses an even structure and a good workability. After hardening the 1.2833EB is characterized by a light distortion and hardness of approx. 64 HRC.

By freezing the hardenable structure is converted almost completely into martensite. The low surface decarburization ensures ideal hardness results. Due to the even carbide distribution high abrasion resistance can be achieved.

Chemical Composition Westig® 1.2833EB*

C	Si	Mn	P	S	V	Cr
0.95–1.05	0.15–0.25	0.15 - 0.30	≤ 0.025	≤ 0.025	0.10–0.15	0.20–0.40

* approx. value

Heat Treatment

	Temperature [°C]	Cooling
Soft annealing	730 - 760	Furnace
Stress relief annealing	650 – 680	Furnace
Hardening	825 – 875	Oil
Tempering	180 – 280	Air
Freezing	-70	

Mechanical Properties

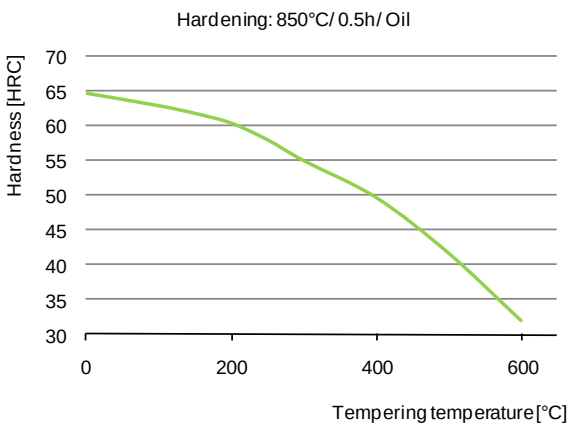
Annealed/ Drawn

	Short symbol	Value at 20 °C	Unit
Tensile strength	Rm	≥ 900	MPa
Yield strength	$R_{p\ 0,2}$	≥ 400	MPa
Elongation	A	> 6	%

Physical Properties

	Short symbol	Value at 20 °C	Unit
Density	ρ	7.84	$\frac{kg}{dm^3}$
Specific heat	c	460	$\frac{J}{kg \cdot K}$
Heat conduction	λ	38	$\frac{W}{K \cdot m}$
Specific electrical resistance	ρ	0.20	µΩm
Modulus of elasticity	E	190 - 210	GPa
Thermal expansion coefficient	α_L	9.0 – 12.80	$10^{-6} * K^{-1}$

Tempering Diagram



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