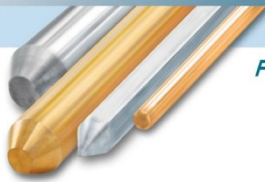


L. KLEIN SA

ACIERS FINS ET MÉTAUX

EDELSTÄHLE UND METALLE

FINE STEEL AND METALS



SWP-Blitz Free Cutting Mild Steel Schwarzwaldstahl

Material No.	DIN Abbreviation	AFNOR	AISI/SAE/ASTM	ISO	Euro Standards	Others
1.0737+Bi	~ 9SMnPb36+Bi	S300PB+Bi	12L13+Bi	12SMnPb35+Bi	~ 11SMnPb37+Bi	

Distinctive feature and main attribute: a non alloyed free cutting mild steel, added with sulphur, lead and bismuth, marked by an even higher machinability. Due to its higher content of phosphorus than the other steel grades, a better surface quality and brittleness of the chips are achieved, longer cutter life and easy processing of work parts.

Use and application range: this material is designated for the automobile industry, appliance construction and apparatus engineering.

CHEMICAL COMPOSITION IN VOLUME PERCENTAGE	C	Si	Mn	P	Pb	S	Bi	Fe
	max. 0.14	max. 0.05	1.00 1.50	max. 0.11	0.20 0.35	0.34 0.40	0.05 0.09	balance

EXECUTION DELIVERY FORM STANDARD SIZES AVAILABILITY	<ul style="list-style-type: none">• Execution in 3 m (2 m) round or square and hexagonal bars as well as in coils for Escomatic• Standard size of Ø 1.00 – 15.00 mm• Other sizes on request
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TOLERANCES	<ul style="list-style-type: none">• Ø < 10.00 mm, cold drawn, on request also ground; ISO h8• Ø > 10.00 mm, cold drawn, on request also ground; ISO h9• Tighter tolerances on request• Out of roundness standard: 1/2 of diameter tolerance
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MECHANICAL PROPERTIES	At delivery status: <ul style="list-style-type: none">• Tensile strength (R_m): 570 – 820 MPa, size depending
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HEAT TREATMENT	This quality is not made for hardening purposes, unless the carbon content is at the upper limit it is possible to do an edge hardening or nitridization process.
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CUTTING RATE	$v_c \sim 120 - 150 \text{ m/min}$, value depending on the lubrication oil, cutting tools and shape of parts. <ul style="list-style-type: none">• Cutting oil: e.g. INOX of Motorex
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Modifications will not be adjusted automatically

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Last update 05/2009
Volume no. 7
Category of goods 004

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