

L. KLEIN SA

ACIERS FINS ET MÉTAUX

EDELSTÄHLE UND METALLE

FINE STEEL AND METALS



SWP-Super Free Cutting Mild Steel Schwarzwaldstahl

Material No.	DIN Abbreviation	AFNOR	AISI/SAE/ASTM	ISO	Euro Standards	Others
1.0737	11SMnPb37 (former 9 SMnPb 36)	S300Pb	~ 12L14	~ 12SMnPb35	11SMnPb37	

Distinctive feature and main attribute: a non-alloyed free cutting mild steel with sulphur and lead, marked by a high machinability and an easy fragmentation of chips. Due to its high sulphur and phosphorus content it is not destined for heat treatment nor generally recommended for welding.

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	Fe
	max. 0.14	max. 0.05	0.90 1.50	max. 0.11	0.20 0.35	0.34 0.40	balance
EXECUTION DELIVERY FORM STANDARD SIZES AVAILABILITY	<ul style="list-style-type: none">• Execution in 3 m round or hexagonal bars as well as in coils for Escomatic• Size in coils of \varnothing 1.00 – 8.00 mm• Size in round bars of \varnothing 1.00 – 20.00 mm• Size in hexagonal bars of \varnothing 2.00 – 6.35 mm• Other sizes on request						
TOLERANCES	<ul style="list-style-type: none">• $\varnothing < 10.00$ mm, cold drawn, on request also ground; ISO h8• $\varnothing > 10.00$ mm, cold drawn, on request also ground; ISO h9• Tighter tolerances on request• Out of roundness standard: $\frac{1}{2}$ of diameter tolerance						
MECHANICAL PROPERTIES	At delivery status: <ul style="list-style-type: none">• Tensile strength (R_m): 570 – 820 MPa, size depending						
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.						
CUTTING RATES	$v_c \sim$ 90 – 120 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						

Modifications will not be adjusted automatically

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