

Quality	36SMnPb14
According to standard	EN 10087: 2000
Number	1.0765

Chemical composition						
C%	Si%	Mn%	P%	S%	Pb%	Deviations allowed for analysis product
	max		max			
0,32-0,39	0,40	1,30-1,70	0,06	0,10-0,18	0,15-0,35	
± 0.03	+ 0.03	± 0.06	+ 0.008	± 0.03	+0.03 -0.02	

Temperature °C							
Hot-forming	Natural state	Soft annealing	Carburizing	Hardening on carburized surface	Stress-relieving		
1250-950	(HB 228 max)	680 air	850-900	770-810 water / oil / salt bath	180-200		
				Pre-heating welding	Stress-relieving after welding		
Normalizing	Direct hardening	Direct hardening	Stress-relieving	not recommended			
900 air	880 water	890 oil or polymer	150-200 furnace cooling	Ac1 710	Ac3 770	Ms 345	Mf 130

Mechanical properties							
Hot-rolled natural forming condition EN 10087: 2000				Hot-rolled quenched and tempered			
Testing at room temperature (longitudinal)				Testing at room temperature (longitudinal)			
size mm		R	HB	R	Rp 0.2	A%	HB
from	to	N/mm ²	for information	N/mm ²	N/mm ² min	min	for information
5	10	580-770	172-231	700-850	480	14	213-253
10	16	580-770	172-231	700-850	460	14	213-253
16	40	560-750	166-222	670-820	420	15	203-246
40	63	560-740	162-219	640-790	400	16	198-237
63	100	550-740	163-219	570-720	360	17	169-223

Cold-drawn +C EN 10277-3: 2008						Hot-rolled Peeled-Reeled +SH			
Values valid also for +C+SL						Values valid also for +SH+SL			
Testing at room temperature (longitudinal)						Testing at room temperature (longitudinal)			
size mm		R ^{a)}	Rp 0.2 ^{a)}	A%	HB	R	Rp 0.2	A%	HB
from	to	N/mm ²	N/mm ² min	min	for inform.	N/mm ²	N/mm ² min	min	
5 ^{b)}	10	660-960	500	6	202-290				
10	16	620-920	440	6	190-275				
16	40	600-900	390	7	178-271	560-750			166-222
40	63	580-840	360	8	172-250	560-740			166-219
63	100	560-820	340	9	162-246	550-740			163-219

a) for flats and special sections, yield point can be - 10% and tensile strength can be ± 10%

b) for thickness < 5 mm, mechanical properties should be agreed before order placement

Cold-drawn + quenching and tempering +C +QT EN 10277-3: 2008						Quenched and tempered + Cold-drawn +QT +C			
size		Testing at room temperature (longitudinal)				Testing at room temperature (longitudinal)			
mm		R ^{c)}	Rp 0.2 ^{c)}	A% ^{c)}	HB ^{c)}	R	Rp 0.2	A%	HB
from	to	N/mm ²	N/mm ² min	min	for inform.	N/mm ²	N/mm ² min	min	for inform.
5 ^{b)}	10					750-1000	525	6	225-298
10	16					740-990	520	6	224-297
16	40	670-820	420	15	203-246	720-970	505	8	223-293
40	63	640-790	400	16	198-237	680-930	475	9	208-278
63	100	570-720	360	17	169-223	580-840	405	9	172-250

c) values valid also +C+QT+SL and +QT+C+SL

b) for thickness < 5 mm, mechanical properties should be agreed before order placement

EUROPE EN	ITALY UNI	CHINA GB	GERMANY DIN	FRANCE AFNOR	U.K. B.S.	RUSSIA GOST	USA AISI/SAE
36SMnPb14	35SMnPb10		36SMnPb14	35MF6Pb		(AS35G2)	