

Quality	11SMn37
According to standards	EN 10087: 2000
Number	1.0736

Chemical composition

C%	Si%	Mn%	P%	S%	Pb%	Deviations allowed for analysis product
max	max		max			
0,14	0,05	1,00-1,50	0,11	0,34-0,40		
± 0.02	+ 0.01	± 0.06	+ 0.02	± 0.04		

Temperature °C

Hot-forming	Natural state	Soft annealing	Carburizing	Hardening on carburized surface	Stress-relieving
1250-950	(HB 180 max)	680 air			
Normalizing	Direct hardening	Direct hardening	Stress-relieving	Pre-heating welding	Stress-relieving after welding
900 air	880 water	890 oil or polymer	150-200 furnace cooling	not recommended	

Mechanical properties

Hot-rolled natural forming condition EN 10087: 2000				Hot-rolled quenched and tempered			
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	
5	10	380-570	112-169	Not suitable for heat treatment			
10	16	380-570	112-169				
16	40	380-570	112-169				
40	63	370-570	109-169				
63	100	360-520	107-154				

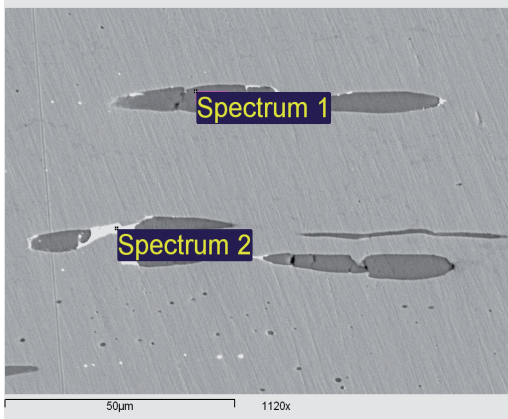
Cold-drawn +C EN 10277-3: 2008						Hot-rolled peeled-reeled +SH			
Values valid also for +C+SL						Values valid also for +SH+SL			
size mm		Testing at room temperature (longitudinal)				Testing at room temperature (longitudinal)			
over	to	R ^{a)}	Rp 0.2 ^{a)}	A%	HB	R	Rp 0.2	A%	HB
		N/mm ²	N/mm ² min	min	for inform.	N/mm ²	N/mm ² min	min	
5 ^{b)}	10	510-810	440	6	154-243				
10	16	490-760	410	7	149-226				
16	40	460-710	375	8	139-218	380-570			112-169
40	63	400-650	305	9	119-200	370-570			112-169
63	100	360-630	245	9	104-192	360-520			107-154

^{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

EUROPE EN	ITALY UNI	CHINA GB	GERMANY DIN	FRANCE AFNOR	U.K B.S.	RUSSIA GOST	USA AISI/SAE
11SMn37	CF 9SMn36		9SMn36	S300			

Steel with sulphur addition



sulphide inclusions $\times 1120$

