



C35
Non-alloy high grade steel

(W. NR. 1.0501)

CHEMICAL COMPOSITION: (heat analysis according to the EN ISO 683-1:2018 standard)

	C %	Si %	Mn %	P %	S %	Cr %	Ni %	Mo %	Cu%	Cr+Mo+Ni %
FROM	0,32	0,10	0,50	-	-	-	-	-	-	-
TO	0,39	0,40	0,80	0,045	0,045	0,40	0,40	0,10	0,30	0,63

*** MECHANICAL FEATURES:** (according to the EN 10277:2018 standard)

Thickness mm	Rolled + peeled rolled (+SH)		Cold drawn (+C)		
	hardness HB	Rm (MPa)	R _{p0,2} minimum values (MPa)	Rm (MPa)	A ₅ % minimum values
≥5≤10			510	650 - 1000	6
>10≤16			420	600 - 950	7
>16≤40	156 – 204	520 - 700	320	580 - 880	8
>40≤63	156 – 204	520 - 700	300	550 - 840	9
>63≤100	156 - 204	520 - 700	270	520 - 800	9

* Delivery condition: as rolled.

PROPERTIES :

Improved machinability:

In order to improve its machinability, this steel grade can be supplied upon request with Pb (lead) addition, for example Pb=0,15%÷0,35%

Weldability:

It can be welded quite well without any precautions.

Hardenability:

Low hardenability; core quenching in water till a diameter of 12-15 mm; as far as bigger diameters are concerned, it hardens only till a certain depth, inversely proportional to diameter, like all non-alloy steels with medium-high carbon content.

Notes :

CORRESPONDENCE WITH OTHER STANDARDS (purely as an indication) :

UNI 7845 C35	DIN 17200 C35	AISI-SAE 1035	AFNOR 35-552 AF55C35
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