

	<b>C35R</b> Non-alloy special steel	<b>(W. NR. 1.1180)</b>
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**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	-	0,020	-	-	-	-	-
TO	0,39	0,40	0,80	0,025	0,040	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)	Rp <sub>0,2</sub> minimum values (MPa)	Rm (MPa)	A <sub>5</sub> % 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 :**

**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 ) :**

<b>UNI 7845</b> C35	<b>DIN 17200</b> Cm35	<b>AISI-SAE</b> 1035	<b>AFNOR 35-552</b> XC38H1u
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