



**C50R**  
Non-alloy special steel

(W. NR. 1.1241)

**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	0,47	0,10	0,60	-	0,020	-	-	-	-	-
TO	0,55	0,40	0,90	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			590	770 - 1100	5
>10≤16			520	730 - 1080	6
>16≤40	179 - 269	610 - 910	440	690 - 1050	7
>40≤63	179 - 269	610 - 910	390	650 - 1030	8
>63≤100	179 - 269	610 - 910	-	-	-

\* Delivery condition: as rolled.

**PROPERTIES :**

**Weldability:**

Not weldable. It can be welded only with particular precautions. It has a bad machinability.

**Hardenability:**

It has a low hardenability in water or oil; fit for surface hardening that gives this steel grade a high hardness of the hardened shell.

**Notes :**

**CORRESPONDENCE WITH THE OTHER STANDARDS ( purely as an indication ) :**

<b>UNI 7845</b> C50	<b>DIN 17200</b> Cm50	<b>AISI-SAE</b> 1050
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