



C15R
Special non-alloy case-hardening steel

(W. NR. 1.1140)

CHEMICAL COMPOSITION: (heat analysis according to the EN ISO 683-3:2022 standard)

| | C % | Si % | Mn % | P % | S % | Cr% | Mo% | Ni% | Cu% |
|------|------|------|------|-------|-------|------|------|------|------|
| FROM | 0,12 | - | 0,30 | - | 0,020 | - | - | - | - |
| TO | 0,18 | 0,40 | 0,60 | 0,025 | 0,040 | 0,40 | 0,10 | 0,40 | 0,30 |

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

| Thickness mm | Annealed + drawn (+A+C) | Cold drawn (+C) | | |
|-----------------|----------------------------|--|-----------|---------------------------------------|
| | Hardness HB max. | Rp _{0,2} minimum values (MPa) | Rm (MPa) | A ₅ % Minimum values |
| ≥5≤10 | 238 | 380 | 500 - 800 | 7 |
| >10≤16 | 231 | 340 | 480 - 780 | 8 |
| >16≤40 | 216 | 280 | 430 - 730 | 9 |
| >40≤63 | 198 | 240 | 380 - 670 | 11 |
| >63≤100 | 178 | 215 | 340 - 600 | 12 |

* Delivery condition: as rolled

PROPERTIES :

Weldability:

It is a soft carbon-steel, easily cold machinable and weldable without any particular precautions.

Improved machinability:

Upon request it can be supplied with improved machinability with Pb (lead) addition, for example Pb=0,15%÷0,35%

Notes:

CORRESPONDENCE WITH OTHER STANDARDS (purely as an indication):

| | | | |
|------------------------|--------------------------|--------------------------------|-----------------------------|
| UNI 7846 C15 | DIN 17210 CK15 | EN 10277-4:2008 C15R | AFNOR 35-551 XC12 |
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