



## HC220Y+ZE

Steels with high yield strength  
for cold forming - ultra high strength IF

Material no.	1.0925
according to	DIN EN 10268

### Chemical composition

(in percent by weight)

	min. in %	max. in %
C		0.01
Si		0.3
Mn		0.9
P		0.08
S		0.025
Al	0.01	
Ti		0.12 <sup>1)</sup>
Nb		0.09 <sup>1)</sup>

1) These additional elements may be added single or in combination, if they are contained in the specification of the steel grade and the mass fraction being within the permissible limits. Vanadium can also be added. The total of the mass fractions of all four elements shall not exceed 0.22%.

### Mechanical properties (transverse)

<b>Yield strength <math>R_{eL}/R_{p0.2}</math> in MPa</b>
220 - 270
<b>Tensile strength <math>R_m</math> in MPa</b>
340 - 420
<b>Total elongation <math>A_{80}</math> in %</b>
$\geq 33$
<b>Hardening exponent <math>n_{90}</math></b>
$\geq 0.18$
<b>Anisotropy <math>r_{90}</math></b>
$\geq 1.6\%$

### Available dimensions

Thickness in mm	Width in mm
0.50 - 0.59	900 - 1,500
0.60 - 0.69	900 - 1,700
0.70 - 1.59	900 - 1,800
1.60 - 1.99	900 - 1,650
2.00 - 2.49	900 - 1,600
2.50 - 3.00	900 - 1,300

### Surface finish

This steel grade is available with surface finishes A and B and 03 and 05 respectively.

Products according to this European Standard must meet the requirements for transverse test pieces as given in table 2.

It may be agreed that the requirements for longitudinal test pieces, as given in table 3, shall be valid instead of those for transverse test pieces.

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