



HC220Y

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

Material no.	1.0925
according to	DIN EN 10268

Chemical composition¹⁾

(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 ²⁾
Nb		0.09 ²⁾

1) Heat analysis

2) 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)

Yield strength $R_{eL}/R_{p0.2}$ in MPa
220-270
Tensile strength R_m in MPa
340-420
Total elongation A80 in %
≥ 33
Hardening exponent n_{90}
≥ 0.18
Anisotropy r_{90} in %
≥ 1.6

Available dimensions

Thickness in mm	Width in mm
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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