



HX460LAD (CR420LA*)

Steels with high yield strength
for cold forming – micro-alloyed

Material no.	1.0990
according to	DIN EN 10346/ DIN EN 10143 * VDA 239-100

Surface finish

Thickness ranges

MB	0.50 – 3.00
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Chemical composition

(in percent by weight)

	min. in %	max. in %
C		0.15
Si		0.50
Mn		1.7
P		0.030
S		0.025
Ti		0.15
Nb		0.10
Al	0.015	
Cu ¹⁾		0.20

1) Cu according to VDA 239-100

Mechanical properties²⁾

Yield strength $R_e^{3)}$ in MPa	
transverse	460 – 560
longitudinal	420 – 520

Tensile strength R_m in MPa	
transverse	500 – 640
longitudinal	480 – 600

Total elongation A_{80} in %	
transverse	≥ 15
longitudinal	≥ 17

Hardening exponent n	
transverse	-
longitudinal	≥ 0,11

2) Test direction is according to DIN EN in transverse and according to VDA in longitudinal rolling direction.

3) $R_{eL}/R_{p0.2}$

Available dimensions

Thickness in mm	Width in mm
0.50 – 0.70	900 – 1,435
0.71 – 0.87	900 – 1,485
0.88 – 1.23	900 – 1,535
1.24 – 2.00	900 – 1,715
2.01 – 3.00	900 – 1,635
3.01 ⁴⁾ – 3.50 ⁴⁾	1,000 – 1,500

4) By prior agreement

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