

STANDARD REFERENCE:

EN 10088-3: 2014 (Hot-rolled and bright products) | EN 10263-5: 2017 (Wire rods, bars and wire for cold heading products)

RODACCIAI REFERENCES AND COMPARABLE STANDARDS

EUROPE		ITALY	GERMANY		FRANCE	UK	USA
EN 10088-3: 2005 EN 10263-5: 2001		(UNI 6900: 71)	(DIN 1654-5: 89)		(NF A 35-574-90)	(BS 3111 pt.2 -79)	AISI
Grade	N°		Werkstoff	N°			
X3CrNiCu18-9-4	1.4567	-	X3CrNiCu18-9	1.4567	Z3 CNU 18 - 10	394S17	302HQ

CHEMICAL COMPOSITION (CAST ANALYSIS) (%)

C / max	Si / max	Mn / max	P / max	S / max	N / max	Cr	Cu	Ni
0,04	1,00	2,00	0,045	0,030	0,10	17,0÷19,0	3,0÷4,0	8,5÷10,5

MECHANICAL PROPERTIES - Cold drawn wire and coils (2H)

Tensile strength levels	+C 600	+C 700	+C 800	+C900	+C 1000	+C 1100
R _m (MPa)	600÷800	700÷900	800÷1000	900÷1100	1000÷1250	1100÷1350

Note: the desired tensile strength level shall be evaluated depending on diameter required

MECHANICAL PROPERTIES - Cold drawn wire and coils in the solution annealed condition (2D)

Size	0,10 ≤ d ≤ 0,20	0,20 ≤ d ≤ 0,50	0,50 ≤ d ≤ 1,00	1,00 ≤ d ≤ 3,00	3,00 ≤ d ≤ 5,00	5,00 ≤ d ≤ 16,00
R _m (MPa) max	1050	1000	950	900	850	800
A (%) min	20	30	30	30	35	35

 Note: If skin passed, R_m might be increased by up to 50 MPa

CARATTERISTICHE MECCANICHE - Bars, wire and coils for cold heading

Size mm	As Treated (+AT) or Peeled (+AT+PE)		Cold Drawn (+AT +C)		Cold Drawn + Solution annealed (+AT +C +AT)		Cold Drawn + Solution annealed + Skin passed (+AT +C +AT +LC)	
	R _m (MPa) max	Z (%) min	R _m (MPa) max	Z (%) min	R _m (MPa) max	Z (%) min	R _m (MPa) max	Z (%) min
≥2 ≤ 5	-	-	-	-	600	68	650	63
> 5 ≤ 10	590	68	740	-	590	68	640	63
> 10 ≤ 25	590	68	700	-	590	68	-	-
> 25 ≤ 50	590	68	-	-	-	-	-	-

WORKING TEMPERATURES RECOMMENDED

Operation	Hot forgings deformation	Solution annealing (water, air)
°C	900÷1200	1000÷1100

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Mark Rodacciai

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