

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		(UNI 6900: 71)	(DIN 17440-85)		(NF A 35-574-90)	(BS 970 pt.3 -91)	AISI
Grade	N°		Werkstoff	N°			
X10CrNi18-8	1.4310	X 2 CrNi 17 07	-	-	Z11 CN 18 - 08	302S31	302

CHEMICAL COMPOSITION (CAST ANALYSIS) (%)

C	Si / max	Mn / max	P / max	S / max	N / max	Cr	Mo / max	Ni
0,05÷0,15	2,00	2,00	0,045	0,015	0,10	16,0÷19,0	0,80	6,0÷9,5

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

Tensile strength levels	+C 600	+C 700	+C 800	+C900	+C 1000	+C 1100	+C 1200	+C 1400	+C 1600	+C 1800
R _m (MPa)	600÷800	700÷900	800÷1000	900÷1100	1000÷1250	1100÷1350	1200÷1450	1400÷1700	1600÷1900	1800÷2100

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

MECHANICAL PROPERTIES - 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	-	-	-	-	720	65	760	60
> 5 ≤10	660	65	890	-	680	65	730	60
> 10 ≤25	660	65	850	-	680	65	-	-
> 25 ≤50	660	65	-	-	-	-	-	-

WORKING TEMPERATURES RECOMMENDED

Operation	Hot forgings deformation	Solution annealing (water, air)
°C	900÷1200	1020÷1100

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STAINLESS STEELS
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302
