

# Stainless Steel wire rod for cold heading

## AUSTENITICS

Brands	Standards	Chemical composition											Rm maxi	Uses
		C	Si	Mn	Ni	Cr	Mo	Cu	S	P	Others			
UGI® HQ201CU		Min		7.50	5.00	14.50		3.00					520	Economical grade
		Max	0.03	0.50	8.50	5.50	15.50	0.50	3.50	0.005	0.040	N < 0.05		
UGI® HQ4301-1 UGI® HQ304-1	EN 1.4301 AISI 304	Min	0.04	0.20	1.00	8.00	18.00						660	Basic A2 grade
		Max	0.06	0.60	1.50	9.00	19.00	0.50	0.50	0.015	0.040	N < 0.06		
UGI® HQ4301-3 UGI® HQ304-3	EN 1.4301 AISI 304	Min	0.02	0.20	1.00	9.00	18.00		0.50				590	Basic A2 grade
		Max	0.04	0.60	1.50	10.00	19.00	0.50	0.75	0.015	0.040	N < 0.03		
UGI® HQ4307 UGI® HQ304L-1	EN 1.4307 AISI 304L	Min		1.00	9.20	18.00							590	Basic low carbon grade - A2
		Max	0.03	1.00	1.50	10.00	19.00	0.50	0.75	0.015	0.040	N < 0.04		
UGI® HQ4306 UGI® HQ304L-2	EN 1.4306 AISI 304L	Min		0.50	10.00	18.00							560	Low carbon grade - A2 difficult striking
		Max	0.03	1.00	1.00	11.00	19.00	0.50	0.50	0.015	0.040	N < 0.04		
UGI® HQ4303 UGI® HQ305	EN 1.4303 AISI 305	Min			11.00	18.00							560	Low carbon grade - A2 severe striking clamping collars
		Max	0.03	0.75	1.50	12.00	19.00	0.50	0.70	0.015	0.035	N < 0.04		
UGI® HQ305-2	EN 1.4303 AISI 305	Min	0.04	1.00	12.00	17.00							560	Low carbon grade - A2 very severe striking non-magnetic properties
		Max	0.06	1.00	2.00	12.50	18.00	0.50	0.50	0.010	0.040	N < 0.05		
UGI® HQ4560	EN 1.4560	Min		1.50	8.30	18.00		1.50					580	Basic grade with Cu - A2
		Max	0.03	1.00	2.00	9.00	19.00	0.30	2.00	0.010	0.040	N < 0.06		
UGI® HQ4567-1 UGI® HQ 302-1	EN 1.4567 302HQ	Min			8.50	17.00		3.00					510	Cu grade - A2 severe striking
		Max	0.03	0.50	2.00	9.00	18.00	0.50	3.50	0.010	0.040	N < 0.03		
UGI® HQ4567-2 UGI® HQ 302-2	EN 1.4567 302HQ	Min			9.00	17.00		3.00					510	Cu grade - A2 severe striking
		Max	0.03	0.75	2.00	10.00	18.00	0.50	3.50	0.010	0.040	N < 0.03		
UGI® HQ4567-3 UGI® HQ302-3	EN 1.4567 302HQ	Min		0.40	9.50	17.00		3.30					510	Cu grade - A2 very severe striking
		Max	0.03	0.75	2.00	10.00	19.00	0.50	4.00	0.010	0.040	N < 0.03		
UGI® HQ4541	1.4541 UNS S32100	Min			9.50	17.00					TI 5xC		570	Basic stabilised A2 grade
		Max	0.06	1.00	2.00	10.50	18.00	0.50	0.50	0.015	0.040	0.60		
UGI® HQ4401 UGI® HQ316	EN 1.4401 AISI 316	Min	0.04		10.50	16.50	2.00						600	Basic A4 grade
		Max	0.07	1.00	2.00	11.50	17.50	2.50	0.50	0.015	0.040	N < 0.05		
UGI® HQ4404 UGI® HQ316L	EN 1.4404 AISI 316L	Min			11.00	16.50	2.00						590	Basic A4 low carbon grade
		Max	0.03	1.00	2.00	12.00	17.50	2.50	0.50	0.015	0.040	N < 0.04		
UGI® HQ4404X4 UGI® HQ316LX4	EN 1.4404 AISI 316L	Min		1.50	11.00	16.50	2.00						590	Low carbon grade - A4 difficult striking
		Max	0.03	0.80	2.00	12.00	17.00	2.50	1.00	0.010	0.030			
UGI® HQ4435 UGI® HQ316LMo	EN 1.4435 AISI 316L	Min		1.25	12.50	16.75	2.50						570	Low carbon grade - A4 severe striking
		Max	0.03	0.75	2.00	13.50	17.75	3.00	0.50	0.010	0.030	N < 0.05		
UGI® HQ317L	EN 1.4438 AISI 317L	Min		0.30	14.00	18.50	3.50						660	Very good corrosion resistance
		Max	0.02	0.60	2.00	15.00	19.50	4.00	0.50	0.010	0.025	N < 0.06		
UGI® HQ4571	EN 1.4571	Min			11.00	16.50	2.00				TI 5xC		550	Basic grade - stabilised A4
		Max	0.05	1.00	2.00	12.00	17.50	2.50	0.50	0.015	0.040	0.60		
UGI® HQ4578 UGI® HQ316LCu	EN 1.4578	Min	-		10.00	16.50	2.00	3.00					530	Basic grade - A4 With Cu
		Max	0.03	1.00	1.00	11.00	17.50	2.50	3.50	0.010	0.040			
UGI® HQ4828	EN 1.4828	Min	0.04	1.50	11.00	19.00							630	Refractory
		Max	0.07	2.00	2.00	12.00	20.00			0.015	0.040	N < 0.06		
UGI® HQ4845 UGI® HQ310S	EN 1.4845 AISI 310S	Min	0.05		19.00	24.00							550	High corrosion and oxidation resistance
		Max	0.10	1.00	2.00	20.00	25.00			0.015	0.040	N < 0.05		
UGI® HQ4841 UGI® HQ314	EN 1.4841 AISI 314	Min		2.00	20.00	24.00							620	High corrosion and oxidation resistance
		Max	0.08	2.50	2.00	21.00	25.00			0.015	0.040	N < 0.05		
UGI® HQ4539 UGI® HQ904L	EN 1.4539 AISI 904L	Min			24.00	19.00	4.00	1.20					640	Very high acid resistance
		Max	0.02	0.70	2.00	25.00	20.00	5.00	2.00	0.010	0.030	N < 0.06		

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## MARTENSITICS

Brands	Standards	Chemical composition										Rm maxi	Uses	
		C	Si	Mn	Ni	Cr	Mo	Cu	S	P	Others			
UGI® HQ4000 UGI® HQ410L	EN 1.4000 AISI 410S	Min				13.00							560	Very low mechanical properties common screws, bolts etc.
		Max	0.03	0.50	1.00	0.50	13.50			0.010	0.030	N < 0.07		
UGI® HQ4006-1 UGI HQ410-1	EN 1.4006	Min	0.09			13.00							610	Low mechanical properties screw clamping collar
		Max	0.12	0.50	0.60	0.60	13.50	0.75	0.75	0.015	0.030	N < 0.07		
UGI® HQ4006-3 UGI® HQ410-3	EN 1.4006 AISI 410	Min	0.10		0.25	11.50							570	Low mechanical properties
		Max	0.13	0.75	0.75	0.75	12.00	0.50	0.50	0.015	0.040	N < 0.05 Al < 0.03		
UGI® HQ4021	EN 1.4021 AISI 420	Min	0.18			13.00							670	Average mechanical properties
		Max	0.21	0.70	1.00	0.50	14.00	0.50		0.015	0.030			
UGI® HQ4028 UGI® HQ420B	EN 1.4021 AISI 420	Min	0.28			13.00							720	Average mechanical properties
		Max	0.32	0.70	1.00	0.50	14.00	0.50		0.015	0.030			
UGI® HQ4034	EN 1.4034 AISI 420	Min	0.43			13.00							750	High mechanical properties balls
		Max	0.47	0.70	1.00	0.50	14.00		0.50	0.015	0.040			
UGI® HQ4542 UGI® HQ630	EN 1.4542 AISI630	Min			4.50	15.50		3.00	0.010			Nb 5xC/0.45	980	Very high mechanical properties
		Max	0.06	0.60	1.00	5.0	16.50	0.50	4.00	0.025	0.025			
UGI® HQ4913	EN 1.4913	Min	0.18		0.30	10.00	0.50					V 0.10/0.15	620	High temperature resistance
		Max	0.22	0.50	0.80	0.80	11.50	1.00		0.010	0.020	Nb 0.25/0.50		
UGI® HQ4922	EN 1.4922	Min	0.18			11.00	0.80					V 0.25	640	High temperature resistance
		Max	0.22	0.80	1.00	0.80	12.00	1.20	0.30	0.020	0.030	0.35		
UGI® HQ4923	EN 1.4923	Min	0.18			11.00	0.80					V 0.25	640	High temperature resistance
		Max	0.22	0.80	1.00	0.80	12.00	1.20	0.30	0.020	0.030	0.35		

## FERRITICS

Brands	Standards	Chemical composition										Rm maxi	Uses	
		C	Si	Mn	Ni	Cr	Mo	Cu	S	P	Nb			
UGI® HQ4016 UGI® HQ430L	EN 1.4016 AISI 430	Min				16.00							560	Basic grade Common screws, bolts etc.
		Max	0.03	0.50	0.60	0.30	17.00	0.50	0.20	0.015	0.030			
UGI® HQ4113 UGI® HQ434	EN 1.4113 AISI 434	Min				16.00	0.90						610	Grade with molybdenum Corrosion resistance
		Max	0.05	1.00	0.80	0.50	17.00	1.20		0.025	0.040			
UGI® HQ4511	EN 1.4511	Min				16.00						12XC and 7(C+N)	570	Niobium-stabilised grade Exhaust line hooks
		Max	0.02	0.50	0.60	0.30	17.00	0.50	0.20	0.015	0.040	0.30		
UGI® HQ4601-1 UGI® HQ409Cb-1	EN 1.4601 AISI 409Cb	Min		0.30	0.30	11.00						10 X C	670	Niobium-stabilised grade Exhaust line hooks
		Max	0.05	0.70	0.80	0.50	12.00	0.50		0.010	0.025	0.60		

## DUPLEX

Brands	Standards	Chemical composition										Rm maxi	Uses	
		C	Si	Mn	Ni	Cr	Mo	Cu	S	P	Others			
UGI® HQ4362	EN 1.4362 UNS S32304	Min			1.00	3.50	22.00	0.10	0.10			N 0.10	760	Eco grade to replace 4401/4404
		Max	0.03	0.75	2.00	6.00	23.00	3.50	0.50	0.010	0.035	0.20		
UGI® HQ4462	EN 1.4462 UNS S31803	Min			1.00	5.00	22.00	2.50				N 0.12	830	
		Max	0.03	0.75	2.00	6.00	23.00	3.50	0.50	0.010	0.035	0.20		