

Bar products: main stainless steel grades

Ugitech brand names	European standards EN 10088, EN 10095, EN 10269, WL, EN506-1		UNS	JIS	AISI, ASTM, or other designations	Chemical composition					
	Material no. (Numerical)	EN Symbolic designation				C %	Ni %	Cr %	Mo %	S %	Others %

MARTENSITIC STAINLESS STEELS

Soft annealed condition

UGI® 4005 UGIMA® 4005 UGI® 4005A	1.4005	X12CrS13	S41600	SUS 416	416 416A	0.06-0.15		12-14	≤ 0.6	0.150-0.350	Mn 1.5
UGI® 4021 UGIMA® 4021	1.4021	X20Cr13	S42000	SUS 420J1	420	0.16-0.25		12-14	≤ 0.030		Mn 1.5
UGI® 4028 UGIMA® 4028	1.4028	X30Cr13	S42000	SUS 420J2	420	0.26-0.35		12-14	≤ 0.030		Mn 1.5
UGI® 4029	1.4029	X29CrS13	S42020	SUS 420F	420F	0.25-0.32		12-13.5	0.6	0.150-0.250	Mn 1.5
UGI® 4031	1.4031	X39Cr13			420C	0.36-0.42		12.5-14.5	≤ 0.030		Mn 1.5
UGI® 4034	1.4034	X46Cr13	S42000		420	0.43-0.50		12.5-14.5	≤ 0.5	≤ 0.030	Mn 1
UGI® 4035	1.4035	X46CrS13			420 / 420F	0.43-0.50		12.5-14		0.150-0.350	Mn 2
UGI® 4116N	1.4116	X50CrMoV15				0.45-0.55		14-15	0.5-0.8	≤ 0.030	Mn 1
UGI® 4122	1.4122	X30CrMo17-1				0.33-0.45	≤ 1	15.5-17.5	0.8-1.3	≤ 0.030	Mn 1.5
UGI® 4197 UGI® 4121	1.4197	X22CrNiMoS13-1			420F2	0.20-0.30	0.7-1	12.5-13.5	1-1.5	0.150-0.250	Mn 1-1.5
UGI® 4922 UGI® 4923	1.4922 1.4923	X22CrMoV12-1				0.17-0.24	0.3-0.8	10-12.5	0.8-1.2	≤ 0.015	V 0.2-0.35
UGIPURE® 422					422	0.16-0.25		12-14		≤ 0.030	Mn 1.5

Quenched and tempered

UGI® 4005 UGI® 4005A UGIMA® 4005	1.4005	X12CrS13	S41600	SUS 416	416 416A	0.06-0.15		12-14	≤ 0.6	0.150-0.350	Mn 1.5
UGI® 4006 UGIMA® 4006	1.4006	X12Cr13	S41000	SUS 410	410	0.08-0.15	≤ 0.75	11.5-13.5		≤ 0.030	Mn 1.5
UGI® 4006A	1.4006	X12Cr13	S41000	SUS 410	410	0.08-0.15	≤ 0.75	11.5-13.5		≤ 0.030	Mn 1.5; B ≤ 0.0015
UGI® 4021 UGIMA® 4021	1.4021	X20Cr13	S42000	SUS 420J1	420	0.16-0.25		12-14		≤ 0.030	Mn 1.5
UGI® 4028 UGIMA® 4028	1.4028	X30Cr13	S42000	SUS 420J2	420	0.26-0.35		12-14		≤ 0.030	Mn 1.5
UGI® 4028W	1.4028	X30Cr13	S42000	SUS 420J2	420	0.26-0.35		12-14		≤ 0.030	Mn 1.5
UGI® 4031	1.4031	X39Cr13			420C	0.36-0.42		12.5-14.5		≤ 0.030	Mn 1.5
UGI® 4034 UGIMA® 4034	1.4034	X46Cr13	S42000		420	0.43-0.50		12.5-14.5	≤ 0.5	≤ 0.030	Mn 1
UGI® 4057 UGIMA® 4057	1.4057	X17CrNi16-2	S43100	SUS 431	431	0.12-0.22	1.5-2.5	15-17		≤ 0.030	Mn 1.5
UGI® 4057 UGI® 4057FG UGI® 4057Q	1.4057	X15CrNi17-3	S43100	SUS 431	431	0.17-0.20	2-2.5	15-16.5		≤ 0.005	Mn 1 max; Si 0.8 max
UGI® 4122	1.4122	X30CrMo17-1				0.33-0.45	≤ 1	15.5-17.5	0.8-1.3	≤ 0.030	Mn 1.5
UGI® 4313	1.4313	X3CrNiMo13-4	S41500	SUS F6NM	415	≤ 0.05	3.5-4.5	12-14	0.3-0.7	≤ 0.015	Mn 1.5
UGI® 4418	1.4418	X4CrNiMo16-5-1				≤ 0.06	4-6	15-17	0.8-1.5	≤ 0.030	Mn 1.5
UGI® 4418Q UGI® 4418QHP	1.4418	X4CrNiMo16-5-1				≤ 0.06	4-6	15-17	0.8-1.5	≤ 0.005	Mn 1.5; Co ≤ 0.1; Nb+Ta ≤ 0.45; B ≤ 0.0015;
UGI® 4913	1.4913	X19CrMoNbVN11-1				0.17-0.23	0.2-0.6	10-11.5	0.50-0.80	≤ 0.015	Nb 0.25-0.55; V 0.1-0.3; Al 0.02
UGI® 4922 UGI® 4923	1.4922 1.4923	X22CrMoV12-1				0.17-0.24	0.3-0.8	10-12.5	0.80-1.20	≤ 0.015	V 0.2-0.35

CHROMIUM FERRITIC STAINLESS STEELS

UGI® 4016	1.4016	X6Cr17	S43000	SUS 430	430	≤ 0.08		16-18		≤ 0.030	Mn 1
UGI® 4104 UGIMA® 4104	1.4104	X14CrMoS17	S43020		430F	0.10-0.17		15.5-17.5	0.2-0.6	0.150-0.350	Mn 1.5; Si 1
UGI® 4105	1.4105	X6CrMoS17	S43020		430F	≤ 0.08		16-18	0.2-0.6	0.150-0.350	Mn 1.5
UGI® 4105Si	1.4105	X6CrMoS17			430FR	≤ 0.08		16-18	0.2-0.6	0.150-0.360	Mn ≤ 1.5; Si ≤ 1.5
UGI® 4106 / IMRE	1.4106**	X2CrMoSi18-2-1*	S18200			≤ 0.03	≤ 0.5	17.5-18	1.5-2.0	0.230-0.280	Mn ≤ 0.6; Si: 1.3-1.5
UGI® 4113	1.4113	X6CrMo17-1	S43400	SUS 434	434	≤ 0.08		16-18	0.9-1.4	≤ 0.030	Mn 1
UGI® 4114	1.4114**	X6CrMoS19-2*			434F UGV182	0.05-0.08	≤ 0.5	17.5-19	1.5-2.5	0.150-0.250	Mn ≤ 0.5
UGI® 4509 UGIMA® 4509	1.4509	X2CrTiNb18	S43940	SUS 430LX	441	≤ 0.03		17.5-18.5		≤ 0.015	Mn 1; Ti 0.1-0.6
UGI® 4511 UGIMA® 4511	1.4511	X3CrNb17		SUS 430LX	430LNb	≤ 0.05		16-18		≤ 0.030	Mn 1; Nb 12C-1
UGI® 4601	1.4601	X6CrNb12			409Cb	≤ 0.03	≤ 0.5	≤ 12	≤ 0.5	≤ 0.01	Mn ≤ 0.8; Nb 10xC or ≤ 0.75
UGIPERM®12FM		X12CrS13+Si*			416Si	≤ 0.02	≤ 0.5	11-13	0-0.5	0.150-0.250	Mn ≤ 0.5

STRUCTURALLY HARDENED STAINLESS STEEL

UGI® 4542 UGIMA® 4542	1.4542	X5CrNiCuNb16-4	S17400	SUS 630	630	≤ 0.07	3-5	15-17	0.6	≤ 0.030	Mn 1.5; Nb = 0.05/0.45; Cu = 3-5; Si 0.7
UGI® 4542Q / 17-4PH UGI® 4542QHP	1.4542	X5CrNiCuNb17-4	S17400	SUS 630	17-4PH 630	≤ 0.07	3-5	15.5-17	0.6	≤ 0.005	Mn 1.5; Nb = 0.05/0.45; Cu = 3-5; Si 0.7; O ≤ 0.1; Nb+Ta ≤ 0.45; B ≤ 0.0015

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STRUCTURALLY HARDENED STAINLESS STEEL

UGI® 4542-1PUR	1.4542	X5CrNiCuNb17-4	S17400	SUS 630	17-4PH 630	≤ 0.07	3-5	15-17	0.6	≤ 0.005	Mn 1.5; Nb = 0.05/0.45 Cu = 3-5; Si 0.7
UGIPURE®15-5PH UGI® 4545PURE	1.4545	X5CrNiCu15-5	S15500		15-5PH	≤ 0.07	3.5-5.5	14-15.5	≤ 0.5	≤ 0.005	Si ≤ 1; Cu 2.5-4.5
UGIPURE®A286	1.4980	X6NiCrTiMoVB25-15-2	S66286		660	0.03-0.08	24-27	13.5-16	1-1.5	≤ 0.005	Mn 1-2; Si ≤ 1; V 0.1-0.5; Al ≤ 0.35; Ti 1.9-2.3

AUSTENO-FERRITIC / DUPLEX STAINLESS STEELS

UGI® 4062	1.4062	X2CrNi22-2				≤ 0.03	1-2.9	21.5-24	0.45	≤ 0.010	Mn 2; Si 1
UGI® 4362 UGIMA® 4362	1.4362	X2CrNiN23-4	S32304			≤ 0.03	3.5-5.5	22-24.5	0.1-0.6	≤ 0.015	Mn 2; Si 1; Cu 0.1-0.6
UGI® 4410	1.4410	X2CrNiMoN25-7-4	S32750			≤ 0.03	6-8	24-26	3.0-4.5	≤ 0.015	Mn 2; Si 1
UGI® 4460 UGIMA® 4460	1.4460	X3CrNiMoN27-5-2	S31200		329	≤ 0.05	4.5-6.5	25-28	1.3-2	≤ 0.015	Mn 2; Si 1
UGI® 4462	1.4462	X2CrNiMoN22-5-3	S32205	SUS 329J3L	F51	≤ 0.03	4.5-6.5	21-23	2.5-3.5	≤ 0.015	Mn 2; Si 1
UGI® 4507	1.4507	X2CrNiMoCuN25-6-3	S32550			≤ 0.03	6-8	24-26	3-4	≤ 0.015	Mn 2; Si 0.7; Cu 1-2.5

AUSTENITIC STAINLESS STEELS

UGI® 4301 UGIMA® 4301 (FG)	1.4301	X5CrNi18-10	S30400	SUS 304	304	≤ 0.07	8-10.5	17.0-19.5		≤ 0.015	Mn 2; Si 1
UGI® 4305 UGIMA® 4305 UGIMA® 4305HM	1.4305	X8CrNiS18-9	S30300	SUS 303	303	≤ 0.10	8-10	17-19		0.150-0.350	Mn 2; Si 1; Cu 1
UGI® 4306 (FG)	1.4306	X2CrNi19-11	S30403	SUS 304L	304 / 304L	≤ 0.03	10-12	18-20		≤ 0.015	Mn 2; Si 1
UGI® 4307 UGIMA® 4307 (FG) UGIMA® 4307HM	1.4307	X2CrNi18-9	S30403	SUS 304L	304 L	≤ 0.03	8-10.5	17.5-19.5		≤ 0.015	Mn 2; Si 1
UGI® 4307Q UGI® 4307QHP	1.4307	X2CrNi18-9	S30403	SUS 304L	304L	≤ 0.03	9-10	18		< 0.010	Co ≤ 0.04; Nb+Ta ≤ 0.15; B ≤ 0.0015
UGI® 4310	1.4310	X10CrNi18-8	S30100	SUS 300	304H	0.05-0.15	6-9.5	16-19	0.8	≤ 0.015	Mn 2; Si 2
UGI® 4311	1.4311	X2CrNiN18-10	S30453	SUS 304LN	304LN	≤ 0.03	8.5-11.5	17.5-19.5		≤ 0.015	Mn 2; Si 1
UGI® 4541 UGIMA® 4541	1.4541	X6CrNiTi18-10	S32100	SUS 321	321 304Ti	≤ 0.08	9-12	17-19		< 0.030	Mn 2; Si 1; Ti 0.05-0.7
UGI® 4541Q	1.4541	X6CrNiTi18-10	S32100	SUS 321	321	≤ 0.08	9-12	17-19		≤ 0.005	Mn 2; Si 1; Ti 0.05-0.7
UGI® 4550Q	1.4550	X6CrNiNb18-10	S34700	SUS 347	347	≤ 0.08	9-12	17-19		≤ 0.005	Nb ≤ 0.40; Nb+Ta ≤ 0.65; B ≤ 0.0015
UGI® 4567 UGIMA® 4567	1.4567	X3CrNiCu18-9-4	S30430	SUS XM7	304Cu	≤ 0.04	8.5-10.5	17-19		≤ 0.015	Mn 2; Si 1; Cu 3-4
UGI® 4570 UGIMA® 4570	1.4570	X6CrNiCuS18-9-2		SUS 303Cu	303Cu	≤ 0.08	8-10	17-19	0.6	0.150-0.350	Mn 2; Si 1; Cu 1.4-1.8
UGIMA® 303Cu+			S30331	SUS 303Cu	303Cu+	≤ 0.08	8-10	17-19	0.6	0.150-0.350	Mn 2; Si 0.5; Cu 2.5-3.0

CHROMIUM-NICKEL-MOLYBDENE AUSTENITIC STAINLESS STEELS

UGI® 4401 UGIMA® 4401 UGIMA® 4401FG	1.4401	X5CrNiMo17-12-2	S31600	SUS 316	316	≤ 0.07	10-13	16.5-18.5	2-2.5	≤ 0.030	Mn 2; Si 1
UGI® 4404 UGIMA® 4404 UGIMA® 4404FG UGIMA® 4404 HM	1.4404	X2CrNiMo17-12-2	S31603	SUS 316L	316L	≤ 0.03	10-13	16.5-18.5	2-2.5	≤ 0.030	Mn 2; Si 1
UGI® 4406	1.4406	X2CrNiMoN17-11-2	S31653	SUS 316LN	316LN	≤ 0.03	10-12.5	16.5-18.5	2-2.5	≤ 0.030	Mn 2; Si 1; N: 0.12-0.22
UGI® 4435FG UGIMA® 4435 UGIMA® 4435FG UGIMA® 4435ICH	1.4435 1.4436	X2CrNiMo18-14-3 X3CrNiMo17-13-3	S31603	SUS 316L	316L (316Mo)	≤ 0.03	12.5-15	17-19	2.5-3	≤ 0.030	Mn 2; Si 1
UGI® 4441HP UGI® 316LPURE	1.4441	X2CrNiMo18-15-3	S31673		316L	≤ 0.03	13-15	17-19	2.25-3.5	≤ 0.010	Cu ≤ 0.5; Mn ≤ 2.0; N ≤ 0.1
UGI® 4539	1.4539	X1NiCrMoCu25-20-5	N08904	SUS 890L	904L	≤ 0.02	24-26	19-21	4-5	≤ 0.010	Mn 2; Si 0.7; Cu 1.2-2.0
UGI® 4571 UGIMA® 4571	1.4571	X6CrNiMoTi17-12-2	S31635	SUS 316Ti		≤ 0.08	10.5-13.5	16.5-18.5	2-2.5	≤ 0.030	Mn 2; Si 1; Ti 0.05-0.7
UGI® 4598 UGIMA® 4598	1.4598	X3CrNiMoS17-11-2				≤ 0.04	10-13	16.5-17.5	2-2.5	≤ 0.015	Mn 2; Si 1; Cu 3-3.5
UGI® 4909 UGI® 4909HP	1.4909	X2CrNiMo17-12-2			316L	≤ 0.03	11.5-13	17-18	2.25-2.75	≤ 0.001	Nb+Ta < 0.15; B ≤ 0.0015; Co ≤ 0.04
UGI® 209			S20910			≤ 0.06	11.5-13.5	20.5-23.5	2-3	≤ 0.030	Nb; N; V; Si

REFRACTORY AUSTENITIC STAINLESS STEELS

UGI® 4828	1.4828	X15CrNiSi20-12			309Si	≤ 0.20	11-13	19-21		≤ 0.015	Si: 1.5-2.5
UGI® 4841	1.4841	X15CrNiSi25-21	S31400		314	≤ 0.20	19-22	24-26		≤ 0.015	Si: 1.5-2.5
UGI® 4845	1.4845	X8CrNi25-21	S31008	SUS 310S	310S	≤ 0.10	19-22	24-26		≤ 0.015	N ≤ 0.11; Si ≤ 1.5

REFRACTORY FERRITIC STAINLESS STEELS

UGI® 4713	1.4713	X10CrAlSi7				≤ 0.12		6-8		≤ 0.015	Al and Si: 0.5-1.0
UGI® 4724	1.4724	X10CrAlSi13				≤ 0.12		12-14		≤ 0.015	Al: 0.7-1.2; Si: 0.7-1.4
UGI® 4742 UGI® 4742S	1.4742	X10CrAlSi18				≤ 0.12		17-19		≤ 0.015	Al: 0.7-1.2; Si: 0.7-1.4
UGI® 4763	1.4763*	X8Cr24*			446	≤ 0.12		23-26		≤ 0.015	N ≥ 0.08; P ≤ 0.035; Si ≤ 0.75; Mn ≤ 0.75

*Grades not defined in EN 10088

Review: all properties and technical information are given for information and depend on the chemical analysis, dimensional range, manufacturing range, presentation and the component manufacturing process. Our sales and technical support departments are at your disposal to recommend a material (grade, as-delivered condition, heat treatment) commensurate with your application and specifications. Please do not hesitate to contact us for further information.

