

Specifiche materiali

Material specifications



Acciai inossidabili austenitici Austenitic stainless steels

Composizione chimica Chemical composition

Sigla Code	C	Mn	Si	Cr	Ni	Co	Mo	Cu	Nb	N	V	Altri Others
AXS 1	0.30	1,5	2	26 - 30	8 - 11	-	-	-	-	-	-	-
AXA 9	0.08	1.5	2	18 - 21	8 - 11	-	-	-	-	-	-	-
AXA 12	0.08	1.5	2	18 - 21	9 - 12	-	2 - 3	-	-	-	-	-
AXA 13	0.08	1.5	2	18 - 21	9 - 12	-	-	-	-	-	-	-
AXA 14	0.10	1.5	2	22 - 26	12 - 15	-	-	-	-	-	-	-
AXA 15	0.20	2	2	23 - 27	19 - 22	-	-	-	-	-	-	-
AXA 16	0.03	1.5	2	17 - 21	8 - 12	-	-	-	-	-	-	-
AXA 17	0.03	1.5	1.5	17 - 21	9 - 13	-	2 - 3	-	-	-	-	-
AXA 18	0.08	1.5	1.5	18 - 21	9 - 13	-	3 - 4	-	-	-	-	-
AXA 19	0.10	1.5	1.5	15 - 18	13 - 16	-	1.75 - 2.25	-	1	-	-	-

Caratteristiche meccaniche Mechanical characteristics

Sigla Code	R Mpa	Rs Mpa	A%	Z%	HB
AXS 1	550	275	10	-	-
AXA 9	485	205	35	-	-
AXA 12	485	205	30	-	-
AXA 13	485	205	30	-	-
AXA 14	485	205	30	-	-
AXA 15	450	195	30	-	-
AXA 16	485	205	35	-	-
AXA 17	485	205	30	-	-
AXA 18	520	240	25	-	-
AXA 19	485	205	20	-	-

Corrispondenze Corresponding features

Sigla Code	UNI	DIN	ASTM	Semilavorati Semiprocessed
AXS 1	-	-	A351/A743 - CE30	-
AXA 9	Gx6CrNi2010 - 3161	1.4308	A351/A743 - CF8	AISI 304
AXA 12	Gx6CrNiMo2011 - 3161	1.4408	A351/A743 - CF8M	AISI 316
AXA 13	Gx6CrNiNb2011 - 3161	1.4552	A351/A743 - CF8C	AISI 347
AXA 14	Gx10CrNi2414 - 3161	1.4556	A351/A743 - CH10	AISI 309
AXA 15	Gx16CrNi2521 - 3161	1.4547	A351/A743 - CK20	AISI 310
AXA 16	Gx2CrNi1910 - 3161	1.4306	A351/A743 - CF3	AISI 304 L
AXA 17	Gx2CrNiMo1911 - 3161	1.4404	A351/A743 - CF3M	AISI 316 L
AXA 18	Gx6CrNiMo201103 - 3161	-	A351/A743 - CG8M	AISI 317
AXA 19	-	-	A351- CF10MC	-

Acciai inossidabili refrattari Refractory stainless steel

Composizione chimica Chemical composition

Sigla Code	C	Mn	Si	Cr	Ni	Co	Mo	Cu	Nb	N	V	Altri Others
AXR 4	0.2 - 0.4	2	2	18 - 23	8-12	-	-	-	-	-	-	-
AXR 5	0.2 - 0.5	2	2	24 - 28	11 - 14	-	-	-	-	-	-	-
AXR 7	0.2 - 0.6	2	2	24 - 28	18 - 22	-	-	-	-	-	-	-
AXR 9	0.2 - 0.5	2	2	19 - 23	23 - 27	-	-	-	-	-	-	-
AXR 11	0.35 - 0.75	2	2.5	15 - 19	33 - 37	-	-	-	-	-	-	-
AXR 14	0.35 - 0.75	2	2.5	15 - 19	64 - 68	-	-	-	-	-	-	-

Caratteristiche meccaniche Mechanical characteristics

Sigla Code	R Mpa	Rs Mpa	A%	Z%	HB
AXR 4	485	240	25	-	8 - 12
AXR 5	515	240	10	-	11 - 14
AXR 7	450	240	10	-	18 - 22
AXR 9	435	-	8	-	23 - 27
AXR 11	450	-	4	-	33 - 37
AXR 14	415	-	-	-	64 - 68

Corrispondenze Corresponding features

Sigla Code	UNI	DIN	ASTM	Semilavorati Semiprocessed
AXR 4	Gx30CrNi2010 - 3159	1.4825	A297 - HF	18 - 23
AXR 5	Gx35CrNi2512 - 3159	1.4837	A297 - HH	24 - 28
AXR 7	Gx40CrNi2620 - 3159	1.4848	A297 - HK	24 - 28
AXR 9	Gx35NiCr2521 - 3159	-	A297 - HN	19 - 22
AXR 11	Gx50NiCr3515 - 3159	1.4865	A297 - HT	15 - 19
AXR 14	Gx55NiCr6617 - 3159	2.4867	A297 - HX	15 - 19

Acciai da costruzione Structural steels

Composizione chimica Chemical composition

Sigla Code	C	Mn	Si	Cr	Ni	Co	Mo	Cu	Nb	N	V	Altri Others
AOC 1	0.25	0.70	0.60	0,50	0,50	-	0,20	0.30	-	-	0.03	-
AOC 2	0.30	1.00	0.60	0,50	0,50	-	0,20	0.30	-	-	0.03	-
AOC 7	0.35	1 - 1.50	0.50	-	-	-		0.35	0.35	-	0.35	-
ASL 5	0.25	0.5 - 0.8	0.60	0,35	0,50	-	0.45 - 0.65	0.50	-	-	-	-
ASL 8	0.05 - 0.20	0.5 - 0.8	0.60	1 - 1.5	-	-	0.9 - 1,2	0.50	-	-	-	-
ASL 9	0.05 - 0.18	0.4 - 0.7	0.60	2 - 2.75	0,50	-	0.9 - 1.2	0.50	-	-	-	-

Caratteristiche meccaniche Mechanical characteristics

Sigla Code	R Mpa	Rs Mpa	A%	Z%	HB
AOC 1	415 - 585	205	24	35	-
AOC 2	485 - 655	250	22	35	-
AOC 7	550	345	22	35	-
ASL 5	450 - 620	240	24	35	-
ASL 8	485 - 685	275	20	35	-
ASL 9	485 - 685	275	20	35	-

Corrispondenze Corresponding features

Sigla Code	UNI	DIN	ASTM	Semilavorati Semiprocessed
AOC 1	FeG450 - 3158	-	A216 - WCA	Fe 42
AOC 2	FeG520 - 3158	-	A216 - WCB	Fe 52
AOC 7	FeG60 - 4010	-	A148 - 80 - 50	Fe 60
ASL 5	G20Mo5 - 3608	1.5419	A217 - WC1	-
ASL 8	G15CrMo55 - 3608	1.7357	A217 - WC6	-
ASL 9	G14CrMo910 - 3608	1.7380	A217 - WC9	-

Acciai inossidabili ferritici Ferritic stainless steels

Composizione chimica Chemical composition

Sigla Code	C	Mn	Si	Cr	Ni	Co	Mo	Cu	Nb	N	V	Altri Others
AXF 7	0.30	1	1.5	18 - 21	2	-	-	-	-	-	-	-
AXF 8	0.50	1	1.5	26 - 30	4	-	-	-	-	-	-	-

Caratteristiche meccaniche Mechanical characteristics

Sigla Code	R Mpa	Rs Mpa	A%	Z%	HB
AXF 7	450	205	-	-	-
AXF 8	380	-	-	-	-

Corrispondenze Corresponding features

Sigla Code	UNI	DIN	ASTM	Semilavorati Semiprocessed
AXF 7	Gx25Cr19 - 3161	1.4059	A743 - CB30	AISI 431
AXF 8	Gx40Cr28 - 3161	1.4340	A743 - CC50	AISI 446

Acciai inossidabili refrattari Refractory stainless steels

Composizione chimica Chemical composition

Sigla Code	C	Mn	Si	Cr	Ni	Co	Mo	Cu	Nb	N	V	Altri Others
AXR 4	0.2 - 0.4	2	2	18 - 23	8 - 12	-	-	-	-	-	-	-
AXR 5	0.2 - 0.5	2	2	24 - 28	11 - 14	-	-	-	-	-	-	-
AXR 7	0.2 - 0.6	2	2	24 - 28	18 - 22	-	-	-	-	-	-	-
AXR 9	0.2 - 0.5	2	2	19 - 23	23 - 27	-	-	-	-	-	-	-
AXR 11	0.35 - 0.75	2	2.5	15 - 19	33 - 37	-	-	-	-	-	-	-
AXR 14	0.35 - 0.75	2	2.5	15 - 19	64 - 68	-	-	-	-	-	-	-

Caratteristiche meccaniche Mechanical characteristics

Sigla Code	R Mpa	Rs Mpa	A%	Z%	HB
AXR 4	485	240	25	-	-
AXR 5	515	240	10	-	-
AXR 7	450	240	10	-	-
AXR 9	435	-	8	-	-
AXR 11	450	-	4	-	-
AXR 14	415	-	-	-	-

Corrispondenze Corresponding features

Sigla Code	UNI	DIN	ASTM	Semilavorati Semiprocessed
AXR 4	Gx30CrNi2010 - 3159	1.4825	A297 - HF	-
AXR 5	Gx35CrNi2512 - 3159	1.4837	A297 - HH	-
AXR 7	Gx40CrNi2620 - 3159	1.4848	A297 - HK	-
AXR 9	Gx35NiCr2521 - 3159	-	A297 - HN	-
AXR 11	Gx50NiCr3515 - 3159	1.4865	A297 - HT	-
AXR 14	Gx55NiCr6617 - 3159	2.4867	A297 - HX	-

Acciai inossidabili a struttura mista (Duplex) Stainless steel with mixed structure

Composizione chimica Chemical composition

Sigla Code	C	Mn	Si	Cr	Ni	Co	Mo	Cu	Nb	N	V	Altri Others
AXS 3	0.04	1	1	24.5 - 26.5	4.75 - 6	-	1.75 - 2.5	2.75 - 3.25	-	-	-	-
AXS 5	0.03	1,5	1	21 - 23,5	4.5 - 6.5	-	2.5 - 3.5	1,0	-	0.10 - 0.20	-	-
AXS 6	0.03	1.5	1	24 - 26	6 - 8	-	4 - 5	-	-	0.10 - 0.30	-	-
AXS 7	0.03	1	1	24 - 26	6.5 - 8.5	-	3 - 4	0.5 - 1	-	0.20 - 0.30	-	W 0.5 - 1

Caratteristiche meccaniche Mechanical characteristics

Sigla Code	R Mpa	Rs Mpa	A%	Z%	HB
AXS 3	690	485	16	-	-
AXS 5	620	415	25	-	-
AXS 6	690	515	18	-	-
AXS 7	690	450	25	-	-

Corrispondenze Corresponding features

Sigla Code	UNI	DIN	ASTM	Semilavorati Semiprocessed
AXS 3	-	-	A743 CD4MCu	-
AXS 5	-	-	A995 - A890 GR.1B	2205
AXS 6	-	-	A995 - A890 - 5A	2507
AXS 7	-	-	A995 - A890 - 6A	Zeron 100

Acciai inossidabili indurenti per precipitazione Stainless steels hardening by precipitation

Composizione chimica Chemical composition

Sigla Code	C	Mn	Si	Cr	Ni	Co	Mo	Cu	Nb	N	V	Altri Others
AXS 11	0.07	0.7	1	15.5 - 17.7	3.6 - 4.6	-	-	2.5 - 3.2	0.15 - 0.35	0,05	-	-
AXS 12	0.07	0.7	1	14 - 15.5	4.5 - 5.5	-	-	2.5 - 3.2	0.15 - 0.35	0,05	-	-

Caratteristiche meccaniche Mechanical characteristics

Sigla Code	R Mpa	Rs Mpa	A%	Z%	HB
AXS 11	860 - 1170	670 - 1000	10 - 5	-	269 - 375
AXS 12	860 - 1170	670 - 1000	10 - 5	-	269 - 375

Corrispondenze Corresponding features

Sigla Code	UNI	DIN	ASTM	Semilavorati Semiprocessed
AXS 11	-	1.4568	A747 CB7 - Cu1	17 - 4 PH
AXS 12	-	-	A747 CB7 - Cu2	15 - 5 PH

Acciai antiusura Wear resistant steels

Composizione chimica Chemical composition

Sigla Code	C	Mn	Si	Cr	Ni	Co	Mo	Cu	Nb	N	V	Altri Others
AXU 1	2 - 2.2	0.6	0.5	12 - 14	-	-	-	-	-	-	-	-

Caratteristiche meccaniche Mechanical characteristics

Sigla Code	R Mpa	Rs Mpa	A%	Z%	HB
AXU 1	-	-	-	-	550

Corrispondenze Corresponding features

Sigla Code	UNI	DIN	ASTM	Semilavorati Semiprocessed
AXU 1	Gx200C13 - 3160	-	-	-

Acciai super inossidabili Super stainless steels

Composizione chimica Chemical composition

Sigla Code	C	Mn	Si	Cr	Ni	Co	Mo	Cu	Nb	N	V	Altri Others
AXX 1	0.07	1.5	1.5	19 - 22	27.5 - 30.5	-	2 - 3	3 - 4	-	-	-	-
AXX 3	0.025	1.2	1.0	19.5 - 20.5	17.5 - 19.5	-	6 - 7	0.5 - 1	-	0.18 - 0.24	-	-

Caratteristiche meccaniche Mechanical characteristics

Sigla Code	R Mpa	Rs Mpa	A%	Z%	HB
AXX 1	425	170	35	-	-
AXX 3	550	260	35	-	-

Corrispondenze Corresponding features

Sigla Code	UNI	DIN	ASTM	Semilavorati Semiprocessed
AXX 1	Gx5NiCrCuMo2921-3161	2.4858	A743 - A351 - CN7M	Lega 20
AXX 3	-	-	A743 - A351-CK3MCuN	254 SMO

Superleghe Nichel Cobalto Super Nickel Cobalt alloys

Composizione chimica Chemical composition

Sigla/Code	C	Mn	Si	Cr	Ni	Co	Mo	Cu	Nb	N	V	Altri / Others
SMP 1	1	1.5	2	-	R	-	-	1.25	-	-	-	Fe 3 max
SMP 2	0.35	1.5	1.25	-	R	-	-	26-33	0.5	-	-	Fe 3.5 max
SMP 4	0.30	1.5	2.7-3.7	-	R	-	-	27-33	-	-	-	Fe 3.5 max
SMP 5	0.25	1.5	3.5 -4.5	-	R	-	-	27-33	-	-	-	Fe 3.5 max
SMP 7	0.07	1	1	1	R	-	30-33	-	-	-	-	Fe 3 max
SMP 9	0.12	1	1	16-18	R	-	15.5-17.5	-	-	-	0.2-0.4	Fe 4.5-7.5 / W3.75 - 5.25
SMP 10	0.05-0.15	1	1	20.5-23	R	0.5-2.5	8-10	0.5	-	-	-	Fe 17 - 20 / W0.2 - 1
SMP 13	0.40	1.5	3	14-17	R	-	-	-	-	-	-	Fe 11 max
SMP 14	0.06	1	1	20-23	R	-	8-10	-	3.5-4.5	-	-	Fe 5 max
SMP 15	0.10	0.30	0.5	47-52	R	-	-	-	1.4-1.7	-	-	-
SMP 17	0.05-0.25	1.5	0.5-1.5	27-30	4	48-52	0.5	-	0.5	-	-	Fe R
SMP 18	2 - 2.5	1	1	28-32	-	R	-	-	-	-	-	W12,5 - 15,5 / Fe3
SMP 19	0.05	1	1	19.5-23.5	38-44	-	2.5-3.5	1.5-3.5	0.6-1.2	-	-	Fe R

Caratteristiche meccaniche Mechanical characteristics

Sigla / Code	R Mpa	Rs Mpa	A%	Z%	HB
SMP 1	345	125	10	-	-
SMP 2	450	170	25	-	-
SMP 4	690	415	10	-	-
SMP 5	-	-	-	-	-
SMP 7	525	275	20	-	-
SMP 9	495	275	4	-	-
SMP 10	485	300	10	-	-
SMP 13	485	195	30	-	-
SMP 14	485	275	25	-	-
SMP 15	550	345	5	-	-
SMP 17	540	320	8	-	-
SMP 18	-	-	-	-	-
SMP 19	520	240	20	-	-

Corrispondenze Corresponding features

Sigla / Code	UNI	DIN	ASTM	Semilavorati / Semiprocessed
SMP 1	-	2.4360	A494 - Cz100	Nickel
SMP 2	-	-	A494 - M35-1	Monel
SMP 4	-	-	A494 - M3H	Monel H
SMP 5	-	2.4882	A494 - M25S	Monel S
SMP 7	-	-	A494 - N7M	Hastelloy B-2
SMP 9	-	-	A494 - CW12MW	Hastelloy C
SMP 10	-	2.4665	-	Hastelloy X
SMP 13	-	2.4856	A494 - CY40	Inconel 600
SMP 14	-	2.4680	A494 - CW6MC	Inconel 625
SMP 15	-	-	A560 - 50/50	50Cr - 50Ni
SMP 17	-	2.4778	-	UMCO 50
SMP 18	-	-	Stellite 3	-
SMP 19	-	-	ASTM A494 Cu5 MCuC	Incoloy 825