

Steels For Low Temperature Service

Werkstoff Nr.	DIN/ EN	Equivalent Designation
1.6582	34CrNiMo6	AISI 4337
1.6580	30CrNiMo8	AISI 4340
1.7225	42CrMo4	-ASTM A320 L7
1.5680	X12Ni5	-SAE 2515
1.4301	X5CrNi18-10	-AISI 304
1.4307	X2CrNi18-9	-AISI 304 L
1.4307	X2CrNi18-9	-AISI 304 L
1.4401	X5CrNiMo17-12-2	-AISI 316
1.4404	X2CrNiMo17-12-2	-AISI 316 L
1.4980	X6NiCrTiMoVB25-15-2	-AISI 660
2.4952	NiCr20TiAl	-Alloy 80A
2.4669	NiCr15Fe7TiAl	-Alloy X-750
1.4429	X2CrNiMoN17-13-3	-AISI 316 LN
1.4910	X3CrNiMoBN17-13-3	-

Alloy Steels For High Temperature Service

Werkstoff Nr.	DIN/ EN	Equivalent Designation
1.4913	X19CrMoNbVN11-1	-
1.7711	40CrMoV4-6	-
1.4923	X22CrMoV12-1	-
1.7225	42CrMo4	ASTM A193 B7
1.7709	21CrMoV5-7	-
1.4404	X2CrNiMo17-12-2	-AISI 316 L
1.4429	X2CrNiMoN17-13-3	-AISI 316 LN
1.4571	X6CrNiMoTi17-12-2	-AISI 316 Ti
1.4541	X6CrNiTi18-10	-AISI 321
1.4539	X1NiCrMoCuN25-20-5	-AISI 904 L
1.7218	25CrMo4	SAE 4130
1.7258	24CrMo5	-
1.7219	26CrMo4	-
1.5511	35B2	-
1.1181	C35E	-
1.4548	X5CrNi CuNb17-4-4	AISI 630/ 17-4 PH
1.4542	X5CrNiCuNb16-4	AISI 630/ 17-4 PH
1.1191	C45E	-
1.4401	X5CrNiMo17-12-2	-AISI 316
1.4301	X5CrNi18-10	-AISI 304

Specials/Heat Resistant/Corrosion Resistant Alloys

Werkstoff Nr.	DIN/ EN	Brand/Std
1.4713	X10CrAlSi7	SICRO® 8
1.4724	X10CrAlSi13	SICRO® 9
1.4742	X10CrAlSi25	SICRO® 10®
1.4762	X10CrAlSi18	SICRO® 12
1.4821	X15CrNiSi25-4	-
1.4828	X15CrNiSi20-12	AISI 309
1.4835	X9CrNiSiNCo21-11-2	253 MA®
1.4841	X15CrNiSi2521	AISI 314 (310)
1.4845	X8CrNi25-21	AISI 310S
1.4864	X12NiCrSi35-16	AISI 330
1.4876	X10NiCrAlTi32-21	Incoloy® 800®
1.4876 H	X10NiCrAlTi3220	Incoloy® 800 H
1.4876 HT	X8NiCrAlTi3221	Incoloy® 800 HT®
1.4878	X8CrNiTi18-10	-
2.4816	NiCr15Fe	Inconel® 600
2.4851	NiCr23Fe	Inconel® 601
2.4856	NiCr22Mo9Nb	Inconel® 625
2.4951	NiCr20Ti	Nimonic® 75
Werkstoff Nr.	DIN/ EN	Brand/Std
1.4006	X12Cr13	-
1.4016	X6Cr17	-
1.4021	X20Cr13	AISI 420
1.4024	X15Cr13	-
1.4028	X30Cr13	-
1.4034	X46Cr13	-
1.4057	X17CrNi16-2	AISI 431
1.4104	X14CrMoS17	AISI 430F
1.4112	X90CrMoV18	-
1.4122	X35CrMo17-1	-
1.4301	X5CrNi18-10	AISI 304
1.4305	X8CrNiS18-9	AISI 303
1.4306	X2CrNi19-11	AISI 304L
1.4310	X10CrNi18-8	-
1.4313	X3CrNiMo13-4	-

1.4361	X1CrNiSi18-15-4	-	
1.4362	X2CrNiN23-4	SAF™ 2304®	
1.4371	X2CrMnNiN17-7-5	-	
1.4401	X5CrNiMo17-12-2	AISI 316	
1.4404	X2CrNiMo17-12-2	AISI 316L	
1.441	X2CrNiMoN25-7-4	SAF™ 2507®	
1.4418	X4CrNiMo16-5-1	-	
1.4429	X2CrNiMoN17-13-3	AISI 316LN	
1.4435	X2CrNiMo18-14-3	AISI 316L	
1.4436	X3CrNiMo17-13-3	AISI 316	
1.4438	X2CrNiMo18-15-4	AISI 317L	
1.4439	X2CrNiMoN17-13-5	AISI 317LNM	
1.4460	X3CrNiMoN27-5-2	AISI 329	
1.4462	X2CrNiMoN22-5-3	SAF™ 2507®	
1.4501	X2CrNiMoCuWN25-7-4	Zeron® 100	
1.4507	X2CrNiMoCuN25-7-4	-	
1.4529	X1NiCrMoCuN25-20-7	Alloy 926	
1.4539	X1NiCrMoCu25-20-5	Uranus® B6	
1.4541	X6CrNiTi18-10	AISI 321	
1.4542	X5CrNiCuNb16-4	17-4PH®	
1.4547	X1CrNiMoCuN20-18-7	254SMO®	
1.4550	X6CrNiNb18-10	AISI 347/348	
1.4562	X1NiCrMoCu32-28-7	Alloy 31	
1.4563	X1NiCrMoCu31-27-4	Sanicro® 28®	
1.4571	X6CrNiMoTi17-12-2	AISI 316 Ti	
1.4578	X3CrNiCuMo17-11-3-2	-	
1.4580	X6CrNiMoNb17-12-2	-	
1.4586	X5NiCrMoCuNb2218	-	
Werkstoff Nr.	DIN/ EN	UNS Nr.	Brand/Std
2.4066	Ni 99,2	UNS N02200	Nickel® 200 / Alloy 200
2.4068	LC-Ni 99	UNS N02201	Nickel® 201 / Alloy 201
2.4360	NiCu30Fe	UNS N04400	Monel® 400
2.4375	NiCu30Al	UNS N05500	Monel®K 500
2.4600	NiMo29Cr	UNS N10675	Hastelloy® B-3®
2.4602	NiCr21Mo14W	UNS N06022	Hastelloy® C-22® / Alloy 22
2.4603	-	UNS N06030	Hastelloy® G-30®
2.4605	NiCr23Mo16Al	UNS N06059	Alloy 59
2.4606	-	UNS N06686	Inconel® 686 / Alloy 686
2.4610	NiMo16Cr16Ti	UNS N06455	Hastelloy® C-4 / Alloy C-4
2.4617	NiMo28	UNS N10665	Hastelloy® B-2
2.4619	NiCr22Mo7Cu	UNS N06985	Hastelloy® G-3
2.4630 (2.4951)	NiCr20Ti	UNS N06075	Nimonic® 75 / Alloy 75
2.4631 (2.4952)	NiCr20TiAl	UNS N07080	Nimonic® 80A
2.4632 (2.4969)	NiCr20Co18Ti	UNS N07090	Nimonic® 90
2.4633	NiCr25FeAlY (Nicrofer6025 HT)	UNS N06025	Alloy 602 CA
2.4634	NiCo20Cr15MoAlTi	-	Nimonic® 105
2.4654	NiCr19Co14Mo4Ti	UNS N07001	Waspaloy®
2.4658	NiCr7030	UNS N06008	Cronix70
2.4660	NiCr20CuMo	UNS N08020	20Cb3®/Alloy 20
2.4663	NiCr23Co12Mo	UNS N06617	Inconel® 617
2.4665	NiCr19NbMo	UNS N06002	Hastelloy® X
2.4668	NiCr19NbMo	UNS N07718	Inconel® 718
2.4669	NiCr15Fe7TiAl	UNS N07750	Inconel® X-750
2.4675	NiCr23Mo16Cu	UNS N06200	Hastelloy® C-2000®
2.4816	NiCr15Fe	UNS N06600	Inconel® 600
2.4819	NiMo16Cr15W	UNS N10276	Hastelloy® C-276
2.4851	NiCr23Fe	UNS N06601	Inconel® 601
2.4851	NiCr23Fe	UNS N06601	Inconel® 601
2.4856	NiCr22Mo9Nb	UNS N06625	Inconel® 625
2.4858	NiCr21Mo	UNS N08825	Incoloy® 825®
2.4951	NiCr20Ti	UNS N06075	Nimonic® 75
2.4952	NiCr20TiAl	UNS N07080	Nimonic® 80A
2.4969	NiCr20Co18Ti	UNS N07090	Nimonic® 90
Werkstoff Nr.	UNS Nr.	Brand/Material	
1.4542	UNS S17400	17-4PH®	
1.4547	UNS S31254	254 SMO®	
1.4547	UNS K92580	AerMet® 100 Alloy	
1.4547	-	Ferrallium® 255®	
1.6772	-	Monix 3 K	
1.3964	-	Nitronic®50®	
1.3964	UNS S21800	Nitronic®60®	
1.4462	UNS S31803	SAF™ 2205	
1.4362	UNS S32304	SAF™ 2304®	
1.4410	UNS S32750	SAF™ 2507®	
1.4563	UNS N08028	SANICRO® 28	
1.4563	-	Tantal	

1.4563	-	Uranus 50	
-	UNS S32760	Zeron® 100	
-	UNS R60702	Zirkonium 702	

Titanium

Werkstoff Nr.	DIN/EN	UNS Nr.	ASTM Nr.
3.7035	Titan Grade 2	UNS R50400	Titan Gr.2
3.7165	TiAl6V4	UNS R56400	Titan Gr.5
3.7235	Ti2Pd	UNS R52400	Titan Gr.7

Duplex and Superduplex

Werkstoff Nr.	DIN/EN	UNS Nr.	Brand/Std
1.4362	X2CrNiN23-4	UNS S32304	SAF™ 2304®
1.4410	X2CrNiMoN25-7-4	UNS S32750	SAF™ 2507®
1.4460	X3CrNiMoN27-5-2	UNS S32900	AISI 329
1.4462	X2CrNiMoN22-5-3	UNS S31803	SAF™ 2507®
1.4501	X2CrNiMoCuWN25-7-4	UNS S32760 - F55	(Zeron® 100)

Designation	Standard	Material	Equivalent EN material
	SAE J429 Grade 1	Low or Medium Carbon Steel	-
	ASTM A307 Grade A & B	Low Carbon Steel	-
	SAE J429 Grade 2	Low or Medium Carbon Steel	-
	SAE J429 Grade 4	Medium Carbon Cold Drawn Steel	-
B5	ASTM A193 Grade B5	AISI 501	1.7362
B6	ASTM A193 Grade B6	AISI 410	1.4006
B6	ASTM A193 Grade B6	AISI 410	1.4006
B7	ASTM A193 Grade B7	AISI 4140, 4142 4105	1.7225
B16	ASTM A193 Grade B16	CrMoVa Alloy Steel	1.7711
B8	ASTM A193 Grade B8 Class 1	AISI 304	1.4301
B8C	ASTM A193 Grade B8C Class 1	AISI 347	1.455
B8M	ASTM A193 Grade B8M Class 1	AISI 316	1.4401
B8T	ASTM A193 Grade B8T Class 1	AISI 321	1.4541
B8	ASTM A193 Grade B8 Class 2	AISI 304 Strain Hardend	1.4301
B8C	ASTM A193 Grade B8C Class 2	AISI 347 Strain Hardend	1.455
B8M	ASTM A193 Grade B8M Class 2	AISI 316 Strain Hardend	1.4401
B8T	ASTM A193 Grade B8T Class 2	AISI 321 Strain Hardend	1.4541
L7	ASTM A320 Grade L7	AISI 4140, 4142 , 4145	1.7225
L7A	ASTM A320 Grade L7A	AISI 4037	-
L7B	ASTM A320 Grade L7B	AISI 4137	1.722
L7C	ASTM A320 Grade L7C	AISI 8740	1.6546
L43	ASTM A320 Grade L43	AISI 4340	1.658
B8	ASTM A320 Grade B8 Class 1	AISI 304	1.4301
B8C	ASTM A320 Grade B8 Class 1	AISI 347	1.455
B8T	ASTM A320 Grade B8 Class 1	AISI 321	1.4541
B8F	ASTM A320 Grade B8 Class 1	AISI 303 (Se)	1.4305
B8M	ASTM A320 Grade B8 Class 1	AISI 316	1.4401
B8	ASTM A320 Grade B8 Class 1	AISI 304	1.4301
B8C	ASTM A320 Grade B8C Class 2	AISI 347	1.455
B8T	ASTM A320 Grade B8T Class 2	AISI 321	1.4541
B8F	ASTM A320 Grade B8T Class 2	AISI 303 (Se)	1.4305
B8M	ASTM A320 Grade B8M Class 2	AISI 316	1.4401
	SAE J429 Grade 5	Medium Carbon Steel Quenched and Temperd	-
	ASTM A449		
	SAE J429 Grade 5.1	Low or Medium Carbon Steel Quenched and Temperd	-
	SAE J429 Grade 5.2	Low Carbon Martensitic Steel Quenched and Tempered	-

A325	ASTM A325 Type 1	Medium Carbon Steel Quenched and Tempered	-
-	ASTM 325 Type 2 (Withdrawn)	Low Carbon Martensitic Steel Quenched and Tempered	-
A325	ASTM A325 Type 3	Atmospheric Corrosion Resisting Steel Quenched and Tempered	-
BD	ASTM A354 Grade BD	Alloy Steel Quenched and Tempered	-
BC	ASTM A354 Grade BC		-
	SAE J429 Grade 7	Medium Carbon Alloy Steel Quenched and Tempered	-
	SAE J429 Grade 8	Medium Carbon Alloy Steel Quenched and Tempered	-
	SAE J429 Grade 8.1	Medium Carbon Alloy or SAE 1041 Modified Elevated Temperature Drawn Steel	-
A490	ASTM A490	Alloy Steel Quenched and Tempered	1.005

BOLTS DIN MATERIALS

Werkstoff Nr.	Material	Equivalent Designation	
1.0501	C 35		
1.0503	C 45	1042 /1045	
1.0540	C 50	AISI 1050	
1.0601	C 60	AISI 1060	
1.1151	C22E (Ck 22)	AISI 1023	
1.1181	C35E (Ck 35)	AISI 1035	
1.1191	C45E (Ck 45)	AISI 1045	
1.1221	C60E	-	
1.6511	36CrNiMo4	AISI 4340	
1.7033	34Cr4	AISI 5132	
1.7035	41Cr4	AISI 5140	
1.7218	25CrMo4	AISI 4130	
1.7220	34CrMo4	AISI 4135	
1.7225	42CrMo4	AISI 4140	
1.7227	42CrMoS4	AISI 4140	
1.7228	50CrMo4	AISI 4150	