RUST AND ACID-RESISTANT STEELS, FERRITIC-AUSTENITIC

RICHTER FORMTEILE

				MECHANICAL-TECHNOLOGICAL CHARACTERISTICS			IMPACT WORK (ISO-V)	HEAT EXTENSION BETWEEN 20 AND 300°C	
DESCRIPTION	MATERIAL NO.	NORM	USUAL HEAT TREATMENT CONDITION	0,2-YIELD STRENGTH $RP_{0,2}$	TENSILE STRENGTH RM (MPA)	FRACTURE STRAIN A_5 (%)	(J)	α (10-6 K-1)	USAGE/ SPECIAL APPLICATION EXAMPLES
G X 6 Cr NiN 26 7	1.4347	EN 10283	Solution annealed and quenched	≥ 420	590-790	≥ 20	≥ 30	14,5	Toughened parts with higher yield strength over austen. Steels with equal or better corrosion resistance, suitable welding additive 1.4462, pump housing
G X 2 CrNiMoN 26 7 4	1.4469 J93404	EN 10213 EN 10283 ASTM A 995	Solution annealed and quenched	≥ 480	≥ 650	≥ 22	≥ 50		In case of strong corrosion, sea or brackish water Operating temperature up to 300°C
G X 2 CrNiMoN 22 5 3	1.4470 J92205	SEW 400 EN 10283 ASTM A 995	Solution annealed and quenched	≥ 420	≥ 600	≥ 20	≥ 30	13	Chemical and petrochemical industry, high resistance to stress corrosion cracking in chlorine-containing media; similar to 1.4462
G X 2 CrNiMoCuN 25 6 3 3	1.4517	EN 10283	Solution annealed and quenched	≥ 480	650-850	≥ 22	≥ 50	14,9	Chemical and Petrochemical Industry, Flue Gas Desulphuri-zation; resistant to non-oxidizing acids, e.g. sulfuric acid
G X 12 Cr 13	1.4006	DIN 17440	Hardened and tempered	≥ 420	600-800			170-210	Like 1,4008, however, slightly higher strength; suitable filler metal 1.4009
G X 12 Cr 12	1.4011 J91150	EN 10283 ASTMA A743	Hardened and tempered	≥ 420	600-800			170-210	Like 1,4008, however, slightly higher strength; suitable filler metal 1.4009
G X 8 CrNi 13 G X 7 CrNiMo 12 1	1.4008	DIN 17445 EN 10283	Hardened and tempered	≥ 44	590-790	≈15	27	170-240	Resistant to atmospheric moisture, water, water vapor; Pump parts, impellers, impeller blades; suitable filler metal 1.4009
X 6 Cr 17	1.4016	DIN 17440	Hardened and tempered	≥ 270	450-600	≈15			Castings with higher corrosion resistance compared to 1.4008; suitable welding filler 1.4302; good polishable
G X 20 Cr 14	1.4027	DIN 17445 SEW 410	Hardened and tempered	≥ 440	590-790	≈12		170-240	For parts that need to be resistant to humidity, steam, water and frequent handling. Suitable filler material 1.4009

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X 46 Cr 13	1.4034	DIN 17440	Hardened and tempered					(55 HRC)	Hardenable cast steel for cutting tools, measuring tools, wearing parts
G X 22 CrNi 17	1.4059	DIN 17445 SEW 410	Hardened and tempered	≥ 590	780-980	≈4		230-300	Corrosion-resistant, heat-treatable cast steel, e.g. for trailer hitches
X 14 CrMoS 17	1.4104	DIN 17440 SEW 310	Hardened and tempered	≥ 550	750-950			225-275	Like 1.4016. For castings where complex mechanical reworking is required. Welding not recommended
X 90 CrMoV 18	1.4112	SEW 400	Hardened and tempered					(57 HRC)	Wear parts, scale pans and cutting
X 20 CrMo 13	1.4120	DIN 17442 SEW 400	Annealed or tempered	≥ 500	750-850	≈10		220-280	Turbine blades, poppet, superheated steam distributor suitable welding filler for temperatures up to 500 ° C 1.4302 and for medical instruments
G X 35 CrMo 17	1.4122	DIN 17442 SEW 400	Annealed or tempered	≥ 500	750-850	≈10		220-280	Parts for optical devices, medical instruments and measuring devices
G X 5 CrNi 13 4	1.4313	DIN 17445	Hardened and tempered Level 1 Level 2	≥ 550	760-960	≈15	≥ 50	240-300	Water turbines and pump parts, suitable welding additive 1.4351
G X 4 CrNi 13 4	1.4317 J91540	EN 10283 ASTM A743	Hardened and tempered Level 1 Level 2	≥ 830	900-1100	≈12	≤ 35	280-350	Water turbines and pump parts, suitable welding additive 1.4351
G X 5 CrNiMo 16 5 1	1.4405	SEW 410 EN 10283	Hardened and tempered	≥ 540	760-960	≈15	≥ 60		For parts with increased corrosion resistance compared to 1.4313; suitable welding filler 1.4405
X 90 CrCoMoV 17	1.4535		Hardened					(59 HRC)	Knives with high cutting hardness and chemical resistancet

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17/4 PH	1.4549	WL 1.4549	Hardened .4 .6	≥ 830-1100	≥ 900-1240	≈8		(30 HRC)	Hardening, stainless cast steel high strength; Aerospace Materials
G X 4 CrNiCuNb 16.4	1.4540	AMS 5342	Hardened .4 .6	≥ 830-1100	≥ 900-1240	≈6		(40 HRC)	Hardening, stainless cast steel high strength; Aerospace Materials
15/5 PH	1.4524	AMS 5346 WL 1.4524	ausgehärtet .4 .6	≥ 830-1100	≥ 900-1200	≈8 ≈6		(30 HRC) (38 HRC)	Hardening, stainless cast steel high strength; Aerospace Materials