

UNSERE PRÄZISION IST IHR ERFOLG
OUR PRECISION IS YOUR SUCCESS

INTERNATIONALER WERKSTOFF-VERGLEICH

International comparison of materials



Comparatif matieres

Confronto internazionale dei materiali





INTERNATIONALER WERKSTOFFVERGLEICH

International comparison of materials / Comparatif matieres / Confronto internazionale dei materiali

	R _m [N/mm ²]	A ₅ [%]	Rockwell [HRc]	EN	Brand name	Mat.-Nr.	 DIN	 AFNOR
MAGNETWEICHEISEN SOFT MAGNETIC STEEL FER PUR MAGNÉTIQUE FERRO DOLCE MAGNETICO								
P	P 1.1	<400				1.1011	RFe160	
	P 1.1	<400				1.1013	RFe100	
	P 1.1	<400				1.1014	RFe80	
	P 1.1	<400				1.1015	RFe60	
	P 1.1	<400				1.1017	RFe20	
	P 1.1	<400				1.1018	RFe12	
BAUSTÄHLE UNLEGIERT CONSTRUCTION STEELS ACIERS DE CONSTRUCTION NON-ALLIÉS ACCIAI DA COSTRUZIONE NON LEGATI								
P	P 1.1	310-500	20		S205GT	1.0032	St34-2	
	P 1.1	310-500	20		S205 GT	1.0034	RsSt34-2	
	P 1.1	290-510	18		S185	1.0035	St33	
	P 1.1	340-510	25		S235JRG1+CR	-	USt 37-2	-
	P 1.1	340-510	25		S235JR	-	St 37-2	-
	P 1.1	410-560	21		S275JR	-	St 44-2	E 28-2
	P 1.1	340-470	25		S235J0	-	St 37-3	E 24-3; E 24-4
	P 1.1	340-470	25		S235J2G3	-	St 37-3	E 24-3; E 24-4
	P 1.1	340-510	25		S235JRC	1.0120	St37-1	
	P 1.1	410-560	21		S275J0C	-	St 44-1	E 28-3; E 28-4
	P 1.1	410-560	21		S275J2G3	-	St 44-3	E 28-3; E 28-4
	P 1.1	470-610	19		E295	-	St 50-2	A 50-2
	P 1.1	470-610	19		S355J0	-	St 52-3 U	E 36-3; E 36-4
	P 1.1	490-630	21		S355J2G3+CR	-	St 52-3	E 36-3; E 36-4
	P 1.1	570-710	15		E335	-	St 60-2	A 60-2
	P 1.1	340-470	25		-	-	RSt37-2	E24-2 Ne
P 1.1	670-830	11		E360	1.0070	St 70-2	A 70-2	
FEINKORNBAUSTÄHLE FINE-GRAIN CONSTRUCTION STEELS ACIERS DE CONSTRUCTION À GRAIN FIN ACCIAI DA COSTRUZIONE A GRANA FINE								
P	P 1.1	310-450	26		S255	1.0461	StE 255	K 01800
	P 1.1	310-470	25		S275	1.0486	StE 285	
	P 1.1	360-510	23		S315	1.0505	StE 315	
	P 1.1	490-630	20		S380	1.8900	StE 380	
	P 1.1	500-680	19		S420	1.8902	StE 420	
	P 1.1	530-720	19		S460	1.8905	StE 460	
	P 1.1	560-760	17		S500	1.8907	StE 500	
	P 1.2	650-930	15		S690	1.8928		
	P 1.2	980-1150	10		S960	1.8933		
	DRUCKBEHÄLTERSTÄHLE PRESSURE VESSEL STEELS ACIERS POUR APPAREILS À PRESSION ACCIAI PER RECIPIENTI A PRESSIONE							
P	P 1.1	360-480	26		P235S	1.0112	SPH 235	
	P 1.1	410-530	22		P265S	1.0310	SPH 265	
	P 1.1	390-510	24		P275SL	1.1100	SPH 275	
	P 1.1	360-480	24		P235GH	1.0345	HI	
	P 1.1	410-530	22		P265GH	1.0425	HII	
	P 1.1	440-580	21		P285NH	1.0435	HIII	
	P 1.1	460-580	21		P295GH	1.0481	17 Mn 4	
	P 1.1	390-510	24		P275NH	1.0487	WStE 285	
	P 1.1	390-510	24		P275NL1	1.0488		
	P 1.1	390-510	24		P275NL2	1.1104	EstE 285	
	P 1.1	510-650	20		P355GH	1.0473	19 Mn 6	
	P 1.1	490-630	22		P355N	1.0562	StE 355	A 510 AP
	P 1.1	490-630	22		P355NH	1.0565	WStE 355	A 510 AP
	P 1.1	490-630	22		P355NL1	1.0566	TtE 355	A 510 FP
P 1.1	490-630	22		P355NL2	1.1106	EtE 355		
AUTOMATENSTÄHLE FREE-MACHINING STEELS ACIERS DE DÉCOLLETAGE ACCIAI ALTA VELOCITÀ								
P	P 1.1	360-530	9		-	1.0711	9 S 20	-
	P 1.1	380-570	8		-	1.0715	9 SMn 28	S 250
	P 1.1	380-570	8		-	1.0718	9 SMnPb 28	S 250 Pb
	P 1.1	360-530	9		-	1.0721	10 S 20	10 F 1
	P 1.1	360-530	9		-	1.0722	10 SPb 20	10 PbF 2
	P 1.1	380-570	8		-	1.0723	15 S 20	-
	P 1.1	390-590	7		-	1.0736	9 SMn 36	S 300
	P 1.1	390-580	7		-	1.0737	9 SMnPb 36	S 300 Pb
	P 1.1	580-730	8		-	1.0726	35 S 20	35 MF 4
	P 1.1	660-800	7		-	1.0727	45 S 20	45 MF 4
	P 1.1	740-880	7		-	1.0728	60 S 20	60 MF 4
	KALTMFORMSTÄHLE COLD FORMING STEELS ACIERS FORMÉS À FROID ACCIAI PER FORMATURA A FREDDO							
P	P 1.1	390-510	20		S315MC	1.0972		
	P 1.1	420-540	19			1.0974	QStE 340 TM	
	P 1.1	420-580	19		S340NC	1.0975	QStE 340 N	
	P 1.1	430-550	19		S355MC	1.0976		
	P 1.1	450-590	18			1.0978	QStE 380 TM	
	P 1.1	480-640	16		S380NC	1.0979	QStE 380 N	
	P 1.1	480-620	16		S420MC	1.0980	QStE 420 TM	
	P 1.1	520-670	14		S460MC	1.0982	QStE 460 TM	
P 1.1	560-700	12		S460NC	1.0983	QStE 460 N		



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KALTMFORMSTÄHLE COLD FORMING STEELS ACIERS FORMÉS À FROID ACCIAI PER FORMATURA A FREDDO									
P	P 1.1	550-700	12	S500MC	-	1.0984	QStE 500 TM		
	P 1.1	580-730	12	S500NC	-	1.0985	QStE 500 N		
	P 1.1	600-760	12	S550MC	-	1.0986	QStE 550 TM		
	P 1.1	600-750	12	S550NC	-	1.0987	QStE 550 N		
	P 1.1	650-820	11	S600MC	-	1.8969			
	P 1.1	700-880	10	S650MC	-	1.8976			
	P 1.2	750-950	10	S700MC	-	1.8974	QStE 690 TM		
BAUSTÄHLE LEGIERT ALLOYED STRUCTURAL STEELS ACIERS DE CONSTRUCTION ALLIÉS ACCIAI DA COSTRUZIONE									
P	P 1.1	440-590	24	-	-	1.5415	15 Mo 3	15 D 3	
	P 1.1	450-590	21	-	-	1.5423	16 Mo 5	-	
	P 1.1	490-640	20	-	-	1.5622	14 Ni 6	16 N 6	
	P 1.1	530-710	20	-	-	1.5680	12 Ni 19	Z 18 N 5	
	P 1.1	450-660	20	-	-	1.7335	13 CrMo 4 4	15 CD 3.5	
	P 1.1	540-690	20	-	-	1.7337	16 CrMo 4 4	15 CD 4.5	
	P 1.1	480-630	18	-	-	1.7380	10 CrMo 9 10	10 CD 9.10	
	P 1.1	700-850	16	-	-	1.7709	21 CrMoV 5 7	-	
	P 1.1	490-640	20	-	-	1.7715	14 MoV 6 3	14 Mo 6	
EINSATZSTÄHLE CASE HARDENING STEELS ACIERS DE CÉMENTATION ACCIAI DA CEMENTAZIONE									
P	P 1.1	340-520	15	C10	-	1.0301	C 10	AF 34 C 10; XC 10	
	P 1.1	360-520	13	C15	-	1.0401	C 15	AF 34 C 12; XC 18	
	P 1.1	480-690	13	C22	-	1.0402	C22	CC20	
	P 1.1	590-780	13	C15E	-	1.1141	Ck 15	XC 15; XC 18	
	P 1.1	620-880	20	C22E	-	1.1151	Ck 22	XC 25; XC 18	
	P 2.1	750-1530	8	-	-	1.2764	X 19 NiCrMo 4	-	
	P 1.1 P 1.2	690-930	15	-	-	1.7012	13 Cr 2	-	
	P 1.1	650-880	16	-	EC60	1.7015	15 Cr 3	12 C 3	
	P 1.2	830-1080	11	-	-	1.5732	14 NiCr 10	14 NC 11	
	P 1.2	880-1180	10	-	-	1.5752	14 NiCr 14	12 NC 15	
	P 1.2 P 1.3	1080-1420	8	-	-	1.5860	14 NiCr 18	-	
	P 1.2	780-1270	8	-	-	1.5919	15 CrNi 6	16 NC 6	
	P 1.2 P 1.3	1080-1320	8	-	-	1.5920	18 NiCr 8	20 NC 6	
	P 1.2	690-1270	11	-	-	1.6523	21 NiCrMo 2	20 NCD 2	
	P 1.2 P 1.3	980-1420	8	-	-	1.6587	17 CrNiMo 6	18 NCD 6	
	P 1.1 P 1.2	650-1000	10	-	EC80	1.7131	16 MnCr 5	16 MC 5	
	P 1.1 P 1.2	650-1000	10	-	EC80	1.7139	16 MnCrS 5	-	
	P 1.2 P 1.3	780-1350	8	-	EC100	1.7147	20 MnCr 5	20 MC 5	
	P 1.2 P 1.3	780-1350	8	-	EC100	1.7149	20 MnCrS 5	-	
	P 1.1 P 1.2	640-1180	11	-	-	1.7262	15 CrMo 5	12 CD 4	
	P 1.2 P 1.3	780-1370	8	-	-	1.7264	20 CrMo 5	18 CD 4	
	P 1.2 P 1.3	780-1380	8	-	-	1.7271	23 CrMoB 3 3	-	
	P 1.2	780-1220	10	-	-	1.7311	20 CrMo 2	-	
	P 1.2	780-1180	10	-	-	1.7321	20 MoCr 4	-	
	P 1.2	780-1180	10	-	-	1.7323	20 MoCrS 4	-	
	P 1.2 P 1.3	780-1370	8	-	-	1.7325	25 MoCr 4	-	
	P 1.2 P 1.3	780-1370	8	-	-	1.7326	25 MoCrS 4	-	
VERGÜTUNGSSTÄHLE UNLEGIERT UNALLOYED HEAT-TREATABLE STEELS ACIERS D'AMÉLIORATION NON-ALLIÉS ACCIAI DA BONIFICA NON LEGATI									
P	P 1.1	520-780	20	C25	-	1.0406	C 25	AF 50 C 30	
	P 1.1	520-780	19	C30	-	1.0528	C 30	-	
	P 1.1	550-780	18	C35	-	1.0501	C 35	AF 55 C 35	
	P 1.1	550-820	16	C40	-	1.0511	C 40	AF 60 C 40	
	P 1.1	630-850	16	C45	-	1.0503	C 45	AF 65 C 45	
	P 1.1	520-780	19	C25E	-	1.1158	Ck 25	XC 25	
	P 1.1	520-780	18	C30E	-	1.1178	Ck 30	-	
	P 1.1	550-780	17	C35E	-	1.1181	Ck 35	XC 38 H1; XC 32	
	P 1.1	550-820	16	C40E	-	1.1186	Ck 40	XC 42 H1	
	P 1.1	630-850	14	C45E	-	1.1191	Ck 45	XC 42	
	P 1.1	590-900	13	C50	-	1.0540	C 50	-	
	P 1.1 P 1.2	620-950	12	C55	-	1.0535	C 55	-	
	P 1.1 P 1.2	650-1000	11	C60	-	1.0601	C 60	CC 55	
	P 1.1	590-900	13	C50E	-	1.1206	Ck 50	XC 48 H1	
	P 1.1 P 1.2	620-950	12	C55E	-	1.1203	Ck 55	XC 55	
	P 1.1 P 1.2	650-1000	11	C60E	-	1.1221	Ck 60	XC 60	
	VERGÜTUNGSSTÄHLE LEGIERT ALLOYED HEAT-TREATABLE STEELS ACIERS D'AMÉLIORATION ALLIÉS ACCIAI DA BONIFICA LEGATI								
	P	P 1.1	490-640	22	-	-	1.1133	20 Mn 5	20 M 5
P 1.1		520-960	11	-	-	1.7735	14 CrMoV 6 9	15 CDV 6	
P 1.1 P 1.2		650-1020	13	-	-	1.3505	100 Cr 6	100 C 6	
P 1.2		850-1130	11	-	-	1.5120	38 MnSi 4	-	
P 1.2		830-1230	12	-	-	1.5121	46 MnSi 4	-	
P 1.2		830-1230	12	-	-	1.5122	37 MnSi 5	-	
P 1.1 P 1.2		650-1000	13	-	-	1.5131	50 MnSi4	-	
P 1.1 P 1.2	690-1030	13	-	-	1.5141	53 MnSi 4	-		



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VERGÜTUNGSSTÄHLE LEGIERT ALLOYED HEAT-TREATABLE STEELS ACIERS D'AMÉLIORATION ALLIÉS ACCIAI DA BONIFICA LEGATI									
P	P 1.2	780-1180	11	-	-	1.5710	36 NiCr 6	35 NC 6	
	P 1.1 P 1.2 P 1.3	630-1350	12	-	-	1.6546	40 NiCrMo 2 2	40 NCD 2	
	P 1.1 P 1.2 P 1.3	720-1400	11	-	-	1.6565	40 NiCrMo 6	-	
	P 1.1 P 1.2	680-1100	13	-	-	1.7003	38 Cr 2	38 C 2	
	P 1.1 P 1.2	720-1100	13	-	-	1.7006	46 Cr 2	42 C 2	
	P 1.1 P 1.2	560-1000	15	-	-	1.7020	32 Cr 2	-	
	P 1.1 P 1.2	560-1000	14	-	-	1.7030	28 Cr 4	-	
	P 1.1 P 1.2	620-1100	14	-	-	1.7033	34 Cr 4	32 C 4	
	P 1.1 P 1.2	600-1100	15	-	-	1.7218	25 CrMo 4	25 CD 4 S	
	P 1.2 P 1.3	700-1200	13	-	-	1.7220	34 CrMo 4	35 CD 4	
	P 1.2 P 1.3	740-1270	12	-	-	1.7223	41 CrMo 4	42 CD 4 TS	
	P 1.2 P 1.3	750-1300	12	-	-	1.7225	42 CrMo 4	42 CD 4 TS	
	P 1.2 P 1.3	800-1300	12	-	-	1.7228	50 CrMo 4	-	
	P 1.1 P 1.2	690-1080	13	-	-	1.1157	40 Mn 4	35 M 5	
	P 1.1 P 1.2	690-930	14	-	-	1.1165	30 Mn 5	35 M 5	
	P 1.2	740-1080	10	-	-	1.1167	36 Mn 5	40 M 5	
	P 1.1 P 1.2	700-950	13	-	-	1.1170	28 Mn 5	20 M 5	
	P 1.2	780-1080	13	-	-	1.3561	44 Cr 2	-	
	P 1.2 P 1.3	780-1270	12	-	-	1.3563	43 CrMo 4	-	
	P 1.2 P 1.3	880-1270	11	-	-	1.3565	48 CrMo 4	-	
	P 1.2 P 1.3	880-1270	11	-	-	1.5223	42 MnV 7	-	
	P 1.2 P 1.3	880-1180	11	-	-	1.5736	36 NiCr 10	30 NC 11	
	P 1.2	830-1080	11	-	-	1.5755	31 NiCr 14	18 NC 13	
	P 1.2 P 1.3	900-1300	11	-	-	1.6511	36 CrNiMo 4	40 NCD 3	
	P 1.2	740-1030	13	-	-	1.6513	28 NiCrMo 4	-	
	P 1.1 P 1.2	630-1150	13	-	-	1.7034	37 Cr 4	38 C 4	
	P 1.2	760-1200	12	-	-	1.7035	41 Cr 4	42 C 4	
	P 1.2 P 1.3	880-1270	11	-	-	1.7561	42 CrV 6	-	
	P 1.2 P 1.3	800-1300	11	-	-	1.8159	50 CrV 4	50 CV 4	
	P 1.3	1240-1470	7	-	-	1.5864	35 NiCr 18	-	
	P 1.2 P 1.3	900-1450	9	-	-	1.6580	30 CrNiMo 8	30 CND 8	
	P 1.2 P 1.3	800-1400	11	-	-	1.6582	34 CrNiMo 6	35 NCD 6	
	P 1.2	780-1180	12	-	-	1.7045	42 Cr 4	42 C 4 TS	
P 1.2 P 1.3	840-1420	11	-	-	1.7361	32 CrMo 12	30 CD 12		
P 1.2 P 1.3	830-1450	10	-	-	1.7707	30 CrMoV 9	-		
P 1.2 P 1.3	830-1600	10	-	-	1.8161	58 CrV 4	-		
P 1.3	1250-1400	10	-	-	Hardox 400	-	-		
WERKZEUGSTÄHLE UNLEGIERT UNALLOYED TOOL STEELS ACIERS À OUTILS NON-ALLIÉS ACCIAI LAVORAZINE NON LEGATO									
P	P 1.1 P 1.2	670-900	11	-	C70U	1.1520	C 70 W1	-	
	P 1.1 P 1.2	680-900	11	-	C80U	1.1525	C 80 W1	Y1 90; Y1 80	
	P 1.1 P 1.2	700-950	10	-	C105U	1.1545	C 105 W1	Y1 105	
	P 1.1 P 1.2	670-900	11	-	-	1.1620	C 70 W2	-	
	P 1.1 P 1.2	680-900	11	-	-	1.1625	C 80 W2	Y1 80	
	P 1.1 P 1.2	700-950	10	-	-	1.1645	C105 W2	Y1 105	
	P 1.1 P 1.2	700-950	10	-	-	1.1654	C 110 W	-	
	P 1.1 P 1.2	710-1000	9	-	-	1.1663	C 125 W	Y2 120	
	P 1.1 P 1.2	760-1000	9	-	-	1.1673	C 135 W	Y2 140	
	P 1.1 P 1.2	630-850	16	-	C45U	1.1730	C 45 W	Y3 42	
	P 1.1 P 1.2	670-900	14	-	C60U	1.1740	C 60 W	Y3 55	
	P 1.1 P 1.2	650-900	14	-	-	1.1744	C 67 W	-	
	P 1.1 P 1.2	670-900	11	-	-	1.1750	C 75 W	-	
	P 1.1 P 1.2	640-870	13	-	-	1.1820	C 55 W	-	
	P 1.1 P 1.2	680-900	11	-	C85U	1.1830	C 85 W	Y3 90	
WERKZEUGSTÄHLE FÜR KALTARBEIT COLD WORK TOOL STEELS ACIERS À OUTILS POUR TRAVAIL À FROID ACCIAI DA LAVORAZIONE A FREDDO									
P	P 1.2-P 1.3 H	≥ 750	< 64	-	102 Cr 6	1.2067	100 Cr 6	Y 100 C 6	
	P 1.2 P 1.3 H	≥ 790	< 61	-	-	1.2101	62 SiMnCr 4	-	
	P 1.1-P 1.3 H	≥ 620	< 61	-	-	1.2103	58 SiCr 8	-	
	P 1.1-P 1.3 H	≥ 710	< 62	-	-	1.2162	21 MnCr 5	20 NC 5	
	P 1.2 P 1.3 H	≥ 740	< 62	-	-	1.2210	115 CrV 3	100 C 3	
	P 1.1-P 1.3 H	≥ 720	< 61	-	-	1.2330	35 CrMo 4	34 CD 4	
	P 1.2 P 1.3 H	≥ 750	< 62	-	-	1.2332	47 CrMo 4	42 CD 4	
	P 1.2 P 1.3 H	≥ 760	< 63	-	-	1.2419	105 WCr 6	105 WC 13	
	P 1.1-P 1.3 H	≥ 720	< 65	-	-	1.2510	100 MnCrW 4	90 MWCV 5	
	P 1.1-P 1.3 H	≥ 730	< 66	-	-	1.2516	120 W 4	110 WC 20	
	P 1.2 P 1.3 H	≥ 750	< 64	-	-	1.2542	45 WCrV 7	-	
	P 1.2 P 1.3 H	≥ 750	< 63	-	-	1.2550	60 WCrV 7	55 WC 20	
	P 1.1-P 1.3 H	≥ 720	< 57	-	-	1.2711	54 NiCrMoV 6	55 NCDV 6	
	P 1.2 P 1.3 H	≥ 830	< 55	-	-	1.2713	55 NiCrMoV 6	55 NCDV 7	
	P 1.2 P 1.3 H	≥ 830	< 59	-	-	1.2721	50 NiCr 13	-	
P 1.1-P 1.3 H	≥ 670	< 62	-	-	1.2735	15 NiCr 14	10 NC 12		
P 1.2 P 1.3 H	≥ 790	< 53	-	-	1.2738	40 CrMnNiMo 8	-		








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P	P 1.2 P 1.3 H	≥ 740	< 63	-	-	1.2762	75 CrMoNiW 6 7	-	
	P 1.2 P 1.3 H	≥ 750	< 60	-	-	1.2826	60 MnSiCr 4	-	
	P 1.2 P 1.3 H	≥ 760	< 65	-	-	1.2833	100 V 1	Y1 105 V	
	P 1.1-P 1.3 H	≥ 720	< 65	-	-	1.2842	90 MnCrV 8	90 MV 8	
	P 2.1 H	≥ 710	< 62	-	-	1.2080	X 210 Cr 12	Z 200 C 12	
	P 2.1 H	≥ 710	< 62	-	-	1.2341	X 6 CrMo 4	-	
	P 2.1 H	≥ 710	< 64	-	-	1.2363	X 100 CrMoV 5 1	Z 100 CDV 5	
	P 2.1 H	≥ 760	< 66	-	-	1.2379	X 155 CrVMo12 1	Z 160 CDV 12	
	P 2.1 H	≥ 740	< 66	-	-	1.2436	X 210 CrW 12	-	
	P 2.1 H	≥ 760	< 66	-	-	1.2601	X 165 CrMoV 12	-	
P 1.2	860-1010	11	33-35	-	Toolox 33	-	-	-	
P 1.3 H	1320-1530	7	44-48	-	Toolox 44	-	-	-	
WERKZEUGSTÄHLE FÜR WARMARBEIT HOT WORK TOOL STEELS ACIERS À OUTILS POUR TRAVAIL À CHAUD ACCIAI DA LAVORAZIONE A CALDO									
P	P 1.2 P 1.3 H	≥ 840	< 59	-	-	1.2744	57 NiCrMoV 77	-	
	P 2.1 H	≥ 760	< 58	-	-	1.2767	X 45 NiCrMo 4	Y 35 NCD 16	
	P 2.1 H	≥ 710	< 56	-	-	1.2083	X 42 Cr 13	Z 40 C 14	
	P 2.1 H	≥ 710	< 55	-	-	1.2343	X 38 CrMoV 5 1	Z 38 CDV 5	
	P 2.1 H	≥ 720	< 55	-	-	1.2344	X 40 CrMoV 5 1	Z 40 CDV 5	
	P 2.1 H	≥ 710	< 52	-	-	1.2365	X 32 CrMoV 3 3	Z 32 CDV 28	
	P 2.1 H	≥ 760	< 52	-	-	1.2567	X 30 WCrV 5 3	Z 32 WCV 5	
	P 2.1 H	≥ 760	< 52	-	-	1.2581	X 30 WCrV 9 3	Z 30 WCV 9	
	P 2.1 H	≥ 760	< 52	-	-	1.2885	X 32 CrMoV 3 3 3	-	
	P 2.1 H	≥ 760	< 52	-	-	1.2316	X 36 CrMo 17	-	
	P 1.2 P 1.3 H	≥ 740	< 52	-	-	1.2311	40 CrMnMo 7	-	
	P 1.2 P 1.3 H	≥ 740	< 52	-	-	1.2312	40 CrMnMoS 8 6	-	
	NITRIERSTÄHLE NITRIDING STEELS ACIERS NITRURÉS ACCIAI DA NITRURAZIONE								
P	P 1.2	800-1200	14	-	-	1.8504	34 CrAl 6	-	
	P 1.2	800-1200	12	-	-	1.8506	34 CrAlS 5	-	
	P 1.2	800-1200	14	-	-	1.8507	34 CrAlMo 5	30 CAD 6.12	
	P 1.2	800-1200	12	-	-	1.8509	41 CrAlMo 7	40 CAD 6.12	
	P 1.2	800-1200	10	-	-	1.8515	31 CrMo 12	30 CD 12	
	P 1.2	800-1200	9	-	-	1.8519	31 CrMoV 9	-	
	P 1.2	800-1200	10	-	-	1.8521	15 CrMoV 5 9	-	
	P 1.2	800-1200	8	-	-	1.8523	39 CrMoV 13 9	-	
	P 1.2	800-1200	12	-	-	1.8550	34 CrAlNi 7	-	
STAHLGUSS STEEL CASTINGS FONTE D'ACIERS GHISA D'ACCIAIO									
P	P 1.1	380-480	25	-	-	1.0420	GS-38	-	
	P 1.1	700-800	15	-	-	1.1118	GS-24 Mn 6	-	
	P 1.1	480-620	20	-	-	1.1120	GS-20 Mn 5	-	
	P 1.1	490-590	22	-	-	1.5419	GS-22 Mo 4	-	
	P 1.1	590-740	18	-	-	1.5633	GS-24 Ni 8	-	
	P 1.1	550-700	18	-	-	1.5681	GS-10 Ni 19	-	
	P 1.1	700-800	12	-	-	1.6309	GS-20 Mn MoNi 5 5	-	
	P 1.2	850-950	12	-	-	1.6579	GS-34 CrNiMo 6	-	
	P 1.2	800-900	13	-	-	1.6748	GS-40 NiCrMo 6 5 6	-	
	P 1.1	570-720	16	-	-	1.6750	GS-20 NiCrMo 3 7	-	
	P 1.1	570-720	21	-	-	1.6760	GS-22 NiMoCr 5 6	-	
P 1.1	490-640	20	-	-	1.7357	GS-17 CrMo 5 5	-		
P 1.1	520-670	21	-	-	1.7379	GS-18 CrMo 9 10	-		
ROST-/SÄUREBESTÄNDIGE STÄHLE FERRITISCH FERRITIC CORROSION AND ACID PROOF STEELS ACIERS INOX ET RÉSIST. ACIDES FERRITIQUES ACCIAI INOSSIDABILI									
P	P 2.1	400-600	17	-	-	1.4002	X 6 CrAl 13	Z 6 CA 13	
	P 2.1	380-560	25	-	-	1.4512	X 5 CrTi 12	Z 6 CT 12	
	P 2.1	400-600	19	-	-	1.4000	X 6 Cr 13	Z 6 C 13	
	P 2.1	450-600	18	-	-	1.4016	X 6 Cr 17	Z 8 C 17	
	P 2.1	500-700	12	-	-	1.4742	X 10 CrAlSi 18	Z 10 CAS 18	
	P 2.1	450-630	18	-	-	1.4113	X 6 CrMo 17	Z 8 CD 17.01	
	P 2.1	420-600	23	-	-	1.4510	X 3 CrTi 17	Z 8 CT 17	
	P 2.1	400-600	20	-	-	1.4521	X 2 CrMoTi 18-2	Z 3 CDT 18-02	
	P 2.1	450-650	15	-	-	1.4724	X 10 CrAlSi 13	Z 13 C 13	
	P 2.1	500-700	15	-	-	1.4749	X 18 CrN28	-	
	P 2.1	520-720	15	-	-	1.4762	X 10 CrAl 24	Z 10 CAS 24	
ROST-/SÄUREBESTÄNDIGE STÄHLE MARTENSITISCH CORROSION AND ACID PROOF STEELS -MARTENSITIC ACIERS INOX/RÉSIST. ACIDES -MARTENSITIQUE ACCIAI INOSSIDABILI									
P	P 2.1	650-850	12	-	-	1.4006	X 10 Cr 13	Z 12 C 13	
	P 2.1	650-850	12	-	-	1.4005	X 12 CrS 13	Z 12 CF 13	
	P 2.1	650-950	15	-	-	1.4021	X 20 Cr 13	Z 20 C 13	
	P 2.1	650-950	15	-	-	1.4028	X 30 Cr 13	Z 30 C 13	
	P 2.1	650-950	12	-	-	1.4031	X 38 Cr 13	Z 40 C 14	
	P 2.1	650-950	10	-	-	1.4034	X 46 Cr 13	Z 40 CM	
	P 2.1	850-1100	12	-	-	1.4116	X 50 CrMoV 15	Z 50 CD 15	
	P 2.1	750-950	12	-	-	1.4122	X 39 CrMo 17-1	Z 38 CD 16-01	
	P 2.1	780-1100	11	-	-	1.4313	X 5 CrNi 13 4	Z 5 CN 13.4	


INTERNATIONALER WERKSTOFFVERGLEICH

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BS	EN	UNI	UNE	JIS	SIS	AISI SAE ASTM
-	-	-	-	-	-	-
-	-	-	-	-	-	-
BW 2	-	102 V 2 KU	-	SKS 43	-	W 210
BO 2	-	90 MnVCr 8 KU	-	-	-	O 2
BD 3	-	X 210 Cr 13 KU	X210Cr12	SKD 1	-	D 3
-	-	-	-	-	-	-
BA 2	-	X 100 CrMoV 5 1 KU	-	SKD 12	2260	A 2
BD 2	-	X 155 CrVMo 12 1 KU	-	SKD 11	-	D 2
-	-	X 215 CrW 12 1 KU	X210CrW12	SKD 2	2312	-
-	-	X 165 CrMoV 12 KU	X160crMoV12	-	2310	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	42 NiCrMo 15 7	-	-	-	-
-	-	X 41 Cr 13 KU	F-5263	SUS 420 J 2	-	-
BH 11	-	X 37 CrMoV 5 1 KU	F-5317	SKD 6	-	H 11
BH 13	-	X 40 CrMoV 5 1 1 KU	F-5318	SKD 61	-	H 13
BH 10	-	X 30 CrMoV 12 27 KU	F-5313	SKD 7	-	H 10
-	-	X 30 WCrV 5 3 KU	-	SKD 4	-	-
BH 21	-	X 30 WCrV 9 3 KU	X30WCrV9	SKD 5	-	H 21
BH 10 A	-	-	F-5314	-	-	-
-	-	X 38 CrMo 16 1 KU	F-5267	-	-	-
-	-	35 CrMo8	-	-	-	-
-	-	40 CrMnMo 7	F-5302	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
905 M 31	-	34 CrAlMo 7	-	-	-	A 355 Cl. D
905 M 39	41B	41 CrAlMo 7	41CrAlMo7	SACM 645	2940	A 355 Cl. A
722 M 24	-	31 CrMo 12	-	-	2240	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
897 M 39	40C	39 CrMoV 13 9	-	-	-	-
-	-	-	-	-	-	-
AM 1	-	-	-	-	-	A 27
-	-	-	-	-	-	-
-	-	-	F.8310	-	-	-
245	-	-	-	SCPH 11	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	A 757
-	-	-	-	-	-	-
-	24	-	-	SNCM 9	2541	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
621	-	-	F-8383	SCPH 21	-	A 217
622	-	-	-	SCPH 32	-	-
LI, RESISTENTI A ACIDI FERRITICI						
405 S 17	-	X 6 CrAl 13	-	SUS 405	2302	405
409 S 19	-	X 6 CrTi 12	-	SUH 409	-	409
403 S 17	-	X 6 Cr 13	F.3110	SUS 403	2301	403
430 S 15	960	X 8 Cr 17	F.3113	SUS 430	2320	430
430 S 15	60	X 8 Cr 17	F-3153	SUS 430; SUH 21	-	430
434 S 17	-	X 8 CrMo 17	F.3116	SUS 434	2325	434
-	-	X 6 CrTi 17	-	SUS 430 LX	-	XM 8; 430 Ti
-	-	-	F-3123	SUS 444	2326	444
-	-	-	F-3152	-	-	-
-	-	-	-	-	-	446
-	-	X 16 Cr 26	F.3154	SUH 446	-	446
INOX E RESISTENTI AGLI ACIDI -MARTENSITICA						
410 S 21	56A	X 12 Cr 13	F.3401	SUS 410	2302	410; CA-15
416 S 21	-	X 12 CrS 13	-	SUS 416	2380	416
420 S 37	-	X 20 Cr 13	-	SUS 420 J 1	2303	420
420 S 45	-	X 30 Cr 13	-	SUS 420 J 2	2304	420
-	-	X 40 Cr 14	-	SUS 420 J 2	2304	420
420 S 45	56D	X 40 Cr 14	F.3405	SUS 420 J 2	2304	420
-	-	-	F-3422	-	-	-
-	-	-	-	-	-	-
425 C 11	-	X 6 CrNi 13 04	-	SCS 5	2385	CA 6-NM







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International comparison of materials / Comparatif matieres / Confronto internazionale dei materiali

	R _m [N/mm ²]	A ₅ [%]	Rockwell [HRc]	EN	Brand name	Mat.-Nr.	 DIN	 AFNOR		
ROST-/SÄUREBESTÄNDIGE STÄHLE MARTENSITISCH CORROSION AND ACID PROOF STEELS -MARTENSITIC ACIERS INOX/RESIST. ACIDES -MARTENSITIQUE ACCIAI INOX										
P	P 2.1	840-1100	14	-	-	1.4418	X 4 CrNiMo 6-5-1	Z 6 CND 16-05-01		
	P 2.1	650-850	14	-	-	1.4024	X15Cr13	Z 12 C 13 M		
	P 2.1	640-840	11	-	-	1.4104	X 14 CrMoS 17	Z 13 CF 17		
	P 2.1	750-950	14	-	-	1.4057	X 17 CrNi 16 2	Z 15 CN 16.02		
	P 2.1	650-950	12	-	-	1.4747	X 80 CrNiSi 20	Z 80 CSN 20.02		
P 2.1	750-950	12	-	-	1.4125	X 105 CrMo 17	Z 100 CD 17			
ROST-/SÄUREBESTÄNDIGE STÄHLE AUSSCHIEDUNGSHÄRTEND CORROSION AND ACID PROOF STEELS PRECIPITATION-HARDENED ACIERS INOX/RESIST. ACIDES -DU										
P	P 2.1	860-1400	13	-	PH 13-8 Mo	1.4534	-	-		
	P 2.1	950-1400	13	-	15-5 PH	1.4545	X4CrNiCuNb16-4	-		
	P 2.1	800-1400	14	-	17-4 PH	1.4542	X5CrNiCuNb16-4	Z 7 CNU 15-05		
	P 2.1	800-1200	12	-	17-7 PH	1.4568	X7CrNiAl17-7	Z 9 CNA 17-07		
ROST-/SÄUREBESTÄNDIGE STÄHLE AUSTENITISCH CORROSION AND ACID PROOF STEELS AUSTENITIC ACIERS INOX/RESIST. ACIDES -AUSTÉNITIQUE ACCIAI INOX										
M	M 1.1	750-950	40	-	-	1.4372	X 12 CrMnNiN 17-7-5	Z 12 CMN 17-07 Az		
	M 1.1	680-880	35	-	-	1.4373	X 12 CrMnNiN 18-9-5	-		
	M 1.1	600-950	40	-	-	1.4310	X 10 CrNi 18-8; X 12 CrNi 17 7	Z 11 CN 17-08		
	M 1.1	630-850	35	-	-	1.4318	X 2 CrNiN 18-7	Z 3 CN 18-07 Az		
	M 1.1	500-700	35	-	-	1.4305	X 10 CrNiS 18 9	Z 10 CNF 18.09		
	M 1.1	600-951	36	-	-	1.4350	X 5 CrNi18 9	Z 6 CN 18.09		
	M 1.1	520-720	45	-	-	1.4301	X 5 CrNi 18 9	Z 6 CN 18.09		
	M 1.1	460-680	45	-	-	1.4306	X 2 CrNi 19 11	Z 2 CN 18.10		
	M 1.1	550-750	40	-	-	1.4311	X 2 CrNiN 18 10	Z 2 CN 18.10		
	M 1.1	510-710	45	-	-	1.4948	X 6 CrNi 18-11	-		
	M 1.1	520-700	45	-	-	1.4307	X 2 CrNi 18-9	Z 2 CN 19-09		
	M 1.1	500-750	40	-	-	1.4315	X 5 CrNiN 19-9	-		
	M 1.1	500-650	45	-	-	1.4303	X 5 CrNi 18 12	Z 8 CN 18.12		
	M 1.1	500-700	33	-	-	1.4833	X 12 CrNi 23-13	Z 15 CN 23-13		
	M 1.1	500-700	33	-	-	1.4845	X 8 CrNi 25-21	Z 8 CN 25-20		
	M 1.1	550-750	30	-	-	1.4841	X 15 CrNiSi 25-21	Z 15 CNS 25-20		
	M 1.1	520-680	40	-	-	1.4401	X 5 CrNiMo 18 10	Z 6 CND 17.11		
	M 1.1	530-730	40	-	-	1.4436	X 5 CrNiMo 17 13 3	Z 6 CND 17.12		
	M 1.1	520-680	40	-	-	1.4404	X 2 CrNiMo 17 13 2	Z 2 CND 17.12		
	M 1.1	520-700	40	-	-	1.4435	X 2 CrNiMo 18 14 3	Z 2 CND 17.13		
	M 1.1	520-700	40	-	-	1.4432	X 2 CrNiMo 17-12-3	Z 3 CND 17-02-03		
	M 1.1	580-780	40	-	-	1.4406	X 2 CrNiMoN 17 12 2	Z 2 CND 17.12 AZ		
	M 1.1	580-780	35	-	-	1.4429	X 2 CrNiMoN 17 13 3	Z 2 CND 17.13 AZ		
	M 1.1	490-740	40	-	-	1.4573	X 10 CrNiMoTi 18 12	-		
	M 1.1	520-690	40	-	-	1.4571	X 6 CrNiMoTi 17 12 2	Z 6 CNT 17.12		
	M 1.1	520-720	40	-	-	1.4580	X 6 CrNiMoNb 17 12 2	Z 6 CNDNb 17.12		
	M 1.1	550-700	35	-	-	1.4438	X 2 CrNiMo 18 16 4	Z 2 CND 19.15		
	M 1.1	580-780	35	-	-	1.4439	X 2 CrNiMoN 17-13-5	Z 3 CND 18-14-05 Az		
	M 1.1	490-740	40	-	-	1.4583	X 10 CrNiMoNb 18 12	-		
	M 1.1	500-720	40	-	-	1.4541	X 6 CrNiTi 18 10	Z 6 CNT 18.10		
	M 1.1	500-720	40	-	-	1.4878	X 8 CrNiTi 18-10	Z 6 CNT 18-10		
	M 1.1	500-720	40	-	-	1.4550	X 6 CrNiNb 18 10	Z 6 CNNb 18.10		
	M 1.1	500-700	40	-	-	1.4563	X 1 NiCrMoCu 31-27-4	Z 2 NCDU 31-27		
	M 1.1	520-730	35	-	-	1.4539	X 1 NiCrMoCu 25-20-5	Z 2 NCDU 25-20		
	M 1.1	550-750	30	-	-	1.4864	X12NiCrSi35-16	Z 20 NCS 33-16		
	M 1.1	500-740	30	-	-	1.4546	X 5 CrNiNb 18 10	Z 6 CNNb 18.10		
	M 1.2	900-1100	14	-	-	1.4718	X 45 CrSi 9 3	Z 45 CS 9		
	M 1.1	500- 750	30	-	-	1.4828	X 15 CrNiSi 20 12	Z 15 CNS 20.12		
	M 1.3	950-1200	8	-	-	1.4871	X 53 CrMnNiN 21 9	Z 52 CMN 21.09		
	M 1.1	500- 750	30	-	-	1.4876	X 10 NiCrAlTi 33 20	Z 8 NC 32.21		
	ROST-/SÄUREBESTÄNDIGE STÄHLE DUPLEX CORROSION AND ACID PROOF STEELS DUPLEX ACIERS INOX/RESIST. ACIDES -DUPLEX ACCIAI INOX E RESISTENTI AGL									
	M	M 1.1 M 1.2	650-880	25	-	Alloy 2205	1.4462	X 2 CrNiMoN 22-5-3	Z 3 CND 22-05 AZ	
M 1.1		600-830	25	-	Alloy 2304	1.4362	X 2 CrNiN 23-4	Z 3 CN 23-04 AZ		
M 1.1 M 1.2		730-930	25	-	Alloy 2507	1.4410	X 2 CrNiMoN 25-7-4	Z 3 CND 25-06		
M 1.1 M 1.2		700-900	25	-	Alloy F255	1.4507	X 2 CrNiMoCuN 25-6-3	Z 3 CNDU 25-06		
M 1.1		620-800	25	-	-	1.4460	X 3 CrNiMoN 27-5-2	Z 5 CND 27-05 AZ		
M 1.1 M 1.2		650-900	30	-	-	1.4062	X 2 CrNiN 22-2	-		
M 1.1 M 1.2		650-900	25	-	-	1.4669	X 2 CrCuNiN 23-2-2	-		
M 1.1 M 1.2		680-900	25	-	-	1.4424	X 2 CrNiMoSi 18-5-3	-		
M 1.1 M 1.2		650-900	25	-	-	1.4162	X 2 CrMnNiN 22-5-2	-		
M 1.1 M 1.2		650-900	25	-	-	1.4482	X 2 CrMnNiMoN 21-5-3	-		
M 1.1 M 1.2		650-900	25	-	Alloy 2205	1.4662	X 2 CrNiMnMoCuN 24-4-3-2	-		
M 1.1 M 1.2		730-930	25	-	Alloy 100	1.4501	X 2 CrNiMoCuWN 25-7-4	-		
M 1.2		750-1000	25	-	-	1.4477	X 2 CrNiMoN 29-7-2	-		
M 1.2		800-1000	25	-	-	1.4658	X 2 CrNiMoCoN 28-8-5-1	-		
GUSSEISEN MIT LAMELLENGRAPHIT CAST IRON WITH LAMELLAR GRAPHITE FONTES GRAPHITE LAMELLAIRE GHISE CON GRAFITE LAMELLARE										
K	K 1.1	100-200			EN-GJL 100	0.6010	GG 10	Ft 10 D		
	K 1.1	150-250			EN-GJL 150	0.6015	GG 15	Ft 15 D		
	K 1.1	200-300			EN-GJL 200	0.6020	GG 20	Ft 20 D		



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International comparison of materials / Comparatif matieres / Confronto internazionale dei materiali

	 BS	EN	 UNI	 UNE	 JIS	 SIS	 AISI SAE ASTM
INOX E RESISTENTI AGLI ACIDI -MARTENSITICA							
-	-	-	-	-	-	2387	-
420 S 29	56B	-	-	-	SUS 410J1	-	420
-	-	X 14 CrS 17	-	F-3431	SUS 430 F	2383	430 F
431 S 29	57	X 16 CrNi 16	-	F-3427	SUS 431	2321	431
443 S 65	59	X 80 CrSiNi 20	-	F.320.B	SUH 4	-	HNV 6
-	-	X 105 CrMo 17	-	-	SUS 440 C	-	440 C
URCI PAR PRÉCIPITATION ACCIAI INOX E RESISTENTI AGLI ACIDI -INDURITI PER PRECIPITAZIONE							
-	-	-	-	-	-	-	5629
-	-	-	-	-	-	-	5659
-	-	-	-	-	SCS 630	-	630
301 S 81	-	-	-	-	SUS 631	2388	631
E RESISTENTI AGLI ACIDI -AUSTENITICO							
-	-	-	-	-	-	-	201
284 S 16	-	-	-	-	-	-	202
301 S 21	-	X10CrNi18-8	-	F-3517	SUS 301	2331	301
-	-	-	-	-	-	-	301LN
303 S 21	58M	X 10 CrNi 18 9	-	F.3508	SUS 303	2346	303
304 S 31	58E	X 5 CrNi 18 10	-	F.3551	SUS 302	-	304
304 S 15	58E	X 5 CrNi 18 10	-	F.3551	SUS 304	2332; 2333	304; 304 H
304 S 12	-	X 2 CrNi 18 11	-	F.3503	SCS 19	2352; 2333	304 L
304 S 62	-	X 2 CrNiN 18 11	-	-	SUS 304 LN	2371	304 LN
304 S 50	-	-	-	-	-	-	304H
-	-	-	-	-	-	-	304 L
-	-	-	-	-	-	-	304 N
305 S 19	-	X 8 CrNi 19 10	-	-	SUS 305	-	308; 305
309 S 24	-	X 6 CrNi 23 14	-	-	SUS 309S	-	309 S
310 S 24	-	X 6 CrNi 25 20	-	F.331	SUS 310S	2361	310 S
314 S 25	-	-	-	F.3310	SUH 310	-	314
316 S 16	58J	X 5 CrNiMo 17 12	-	F.3543	SUS 316	2347	316
316 S 16	-	X 5 CrNiMo 17 13	-	F.3538	SUS 316	2343	316
316 S 11	-	X 2 CrNiMo 17 12	-	F.3533	SUS 316 L	2348	316 L
317 S 12	-	X 2 CrNiMo 17 13	-	-	SCS 16; SUS 316 L	2353	316 L
316 S 13	-	X 2 CrNiMo 17-12-3	-	F-3537	-	-	316 L
316 S 61	58C	X 2 CrNiMoN 17 12	-	F-3542	SUS 316 LN	-	316 LN
316 S 62	-	X 2 CrNiMoN 17 13	-	F-3543	SUS 316 LN	2375	316 LN
320 S 33	-	X 6 CrNiMoTi 17 13	-	-	SUS 316 Ti	-	316 Ti
320 S 31	58J	X 6 CrNiMoTi 17 12	-	F.3535	SUS 316 Ti	2350	316 Ti
318 S 17	-	X 6 CrNiMoNb 17 12	-	F.3536	-	-	316 Cb
317 S 12	-	X 2 CrNiMo 18 15	-	F-3539	SUS 317 L	2367	317 L
-	-	-	-	F-3544	-	-	317 LMN
-	-	X 6 CrNiMoNb 17 13	-	-	-	-	318
321 S 12	58B	X 6 CrNiTi 18 11	-	F.3553; F.3523	SUS 321	2337	321
321 S 31	-	-	-	-	SUS 321	-	321 H
347 S 17	58F	X 6 CrNiNb 18 11	-	F.3552; F.3524	SUS 347	2338	347
-	-	-	-	-	-	2584	B 668
904 S 13	-	-	-	-	-	2562	904 L
NA 17	-	-	-	F.3313	SUH 330	-	330
347 S 18	58F	X 6 CrNiNb 18 11	-	F-3524	SUS 347	2338	348
401 S 45	52	X 45 CrSi 8	-	-	SUH 1	-	HNV 3
309 S 24	-	-	-	-	SUH 309	-	309
349 S 54	-	X 53 CrMnNiN 21 9	-	-	SUH 35; SUH 36	-	EV 8
NA 15 (H)	-	-	-	-	NCF 800	-	B 163
ACIDI -DUPLEX							
318 S 13	-	-	-	-	SUS 329J3L	2377	318 LN
-	-	-	-	-	-	2327	-
-	-	-	-	-	SCS 14A	2328	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	2324	329
-	-	-	-	-	-	-	2202
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	318 LN
-	-	-	-	-	-	-	-
-	-	G 10	-	-	FC 10	01 10-00	A48-20 B
Grade 150	-	G 15	-	FG 15	FC 15	01 15-00	A48-25 B
Grade 220	-	G 20	-	FG 20	FC 20	01 200	A48-30 B







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	R _m [N/mm ²]	A ₅ [%]	Rockwell [HRc]	EN	Brand name	Mat.-Nr.	 DIN	 AFNOR
GUSSEISEN MIT LAMELENGRAPHIT CAST IRON WITH LAMELLAR GRAPHITE FONTES GRAPHITE LAMELLAIRE GHISE CON GRAFITE LAMELLARE								
K	K 1.1	250-350		EN-GJL 250		0.6025	GG 25	Ft 25 D
	K 1.1	300-400		EN-GJL 300		0.6030	GG 30	Ft 30 D
	K 1.1	350-450		EN-GJL 350		0.6035	GG 35	Ft 35 D
	K 1.1	400-500		EN-GJL 400		0.6040	GG 40	Ft 40 D
	K 1.1	170-210		EN-JL3011	-	0.6655	GGL-NiCuCr 15 6 2	L-NUC 15 6 2
	K 1.1	170-210		-	-	0.6660	GGL-NiCr 20-2	L-NC 20 2
	K 1.1	190-220		-	-	0.6676	GGL-NiCr 30-3	L-NC 30 3
	K 1.1	170-210		-	-	0.6680	GGL-NiSiCr 30-5-5	L-NSC 30 5 5
GUSSEISEN MIT KUGELGRAPHIT CAST IRON WITH NODULAR GRAPHITE FONTES GRAPHITE SPHÉROÏDAL GHISE CON GRAFITE NODULARE								
K	K 1.1	370-400	14	EN-GJS-400-15		0.7040	GGG 40	FGS 400-12
	K 1.1	420-500	7	EN-GJS-500-7		0.7050	GGG 50	FGS 500-7
	K 1.1	550-600	3	EN-GJS-600-3		0.7060	GGG 60	FGS 600-3
	K 1.1	660-700	2	EN-GJS-700-2		0.7070	GGG 70	FGS 700-2
	K 1.1	770-800	2	EN-GJS-800-2		0.7080	GGG 80	FGS 800-2
	K 1.1	370-480	7	-	-	0.7660	GGG-NiCr 20 2	S-NC 20 2
	K 1.1	390-480	7	-	-	0.7661	GGG-NiCr 20 3	S-NC 20 3
	K 1.1	370-450	20	EN-GJSA-XNi22	-	0.7670	EN-GJSA-XNi22	S-N 22
	K 1.1	440-480	25	EN-GJSA-XNiMn23-4	-	0.7673	EN-GJSA-XNiMn23-4	S-NM 23 4
	K 1.1	370-480	7	EN-GJSA-XNiCr30-3	-	0.7676	EN-GJSA-XNiCr30-3	S-NC 30 3
	K 1.1	370-420	13	-	-	0.7677	GGG-NiCr 30 1	S-NC 30 1
	K 1.1	390-500	1	EN-GJSA-XNiSiCr30-5-5	-	0.7680	EN-GJSA-XNiSiCr30-5-5	S-NSC 30 5 5
	K 1.1	370-420	20	EN-GJSA-XNi35	-	0.7683	EN-GJSA-XNi35	S-N 35
	K 1.1	370-450	7	EN-GJSA-XNiCr35-3	-	0.7685	EN-GJSA-XNiCr35-3	S-NC 35 3
GUSSEISEN MIT VERMICULARGRAPHIT CAST IRON WITH VERMICULAR GRAPHITE FONTES VERMICULAIRES GHISE CON GRAFITE VERMICOLARE								
K	K 1.1	300-375	2	EN-GJV 300			GGV 300	-
	K 1.1	350-425	2	EN-GJV 350			GGV 350	-
	K 1.1	400-475	1	EN-GJV 400			GGV 400	-
	K 1.1	450-525	1	EN-GJV 450			GGV 450	-
	K 1.1	500-575	1	EN-GJV 500			GGV 500	-
TEMPERGUSS MALLEABLE CAST IRON FONTES MALLÉABLES GHISE MALLEABILI								
K	K 1.1	300-350	10	EN-GJMB 350-10	-	0.8135	GTB-35-10	MN35-10
	K 1.1	420-450	6	EN-GJMB 450-6	-	0.8145	GTB-45-06	-
	K 1.1	480-550	4	EN-GJMB 550-4	-	0.8155	GTB-55-04	MP50-5
	K 1.1	620-650	2	EN-GJMB 650-2	-	0.8165	GTB-65-02	MP60-3
	K 1.1	660-700	2	EN-GJMB 700-2	-	0.8170	GTB-70-02	M870-2
	K 1.1	270-360	3	EN-GJMW-350-4	-	0.8035	GTW-35-04	MB35-7
	K 1.1	300-420	4	EN-GJMW-400-5	-	0.8040	GTW-40-05	MB40-10
	K 1.1	330-480	4	EN-GJMW-450-7	-	0.8045	GTW-45-07	-
K 1.1	490-570	3	EN-GJMW-550-4	-	0.8055	GTW-55-04	-	
GUSSEISEN AUSFERRITISCH (ADI) + HARTGUSS AUSFERRITIC CAST IRON (ADI) + HARD CASTING FONTE AUSFERRITIQUE (ADI) + FONTES TREMPÉES GHISA AUSFERRE								
K	K 2.1	≥ 1400				0.9620	GJH-X 260 NiCr 4-2	-
	K 2.1	≥ 1400				0.9625	GJH-X 330 NiCr 4-2	-
	K 2.1	≥ 1260				0.9630	GJH-X 300 CrNiSi 9-5-2	-
	K 2.1	≥ 1400				0.9635	GJH-X 300 CrMo 15-3	-
	K 2.1	800	10	EN-GJS-800-10	ADI 800	5.3400		-
	K 2.1	900	8	EN-GJS-900-8	ADI 900	5.3402		-
	K 2.1	1050	6	EN-GJS-1050-6	ADI 1000	5.3403		-
	K 2.1	1200	3	EN-GJS-1200-3	ADI 1200	5.3404		-
	K 2.1	1400	1	EN-GJS-1400-1	ADI 1400	5.3405		-
	ALUMINIUM UNLEGIERT ALUMINIUM UNALLOYED ALUMINIUM NON ALLIÉ ALLUMINIO NON LEGATO							
N	N 1.1	40-100	33	EN-AW-1090	-	3.0305	Al99.9	A9
	N 1.1	40-100	27	EN-AW-1080A	-	3.0128	Al99.8	A8
	N 1.1	40-100	27	EN-AW-1070A	-	3.0275	Al99.7	A7
	N 1.1	65-150	33	EN-AW-1050A	-	3.0225	Al99.5	A5
	N 1.1	65-150	33	EN-AW-1200	-	3.0205	Al99	A4
ALUMINIUM-KNETLEGIERUNGEN NICHT AUSHÄRTBAR ALUMINIUM WROUGHT ALLOYS – NOT HARDENABLE ALLIAGES D'ALUMINIUM CORROYÉS – NON DURCISSA								
N	N 1.1	100-125	1	EN-AW-3105	-	3.0505	AlMn0.5Mg0.5	-
	N 1.1	80-230	2	EN-AW-3103	-	3.0515	AlMn1	-
	N 1.1	210-330	4	EN-AW-3003	-	3.0517	AlMnCu	-
	N 1.1	115-250	1	EN-AW-3005	-	3.0525	AlMn1Mg0,5	A-M 1.1G0,5
	N 1.1	100-205	4	EN-AW-5005	-	3.3315	AlMg1	A-G0,6
	N 1.1	130-360	13	EN-AW-5019	-	3.3555	AlMg5	A-G5
	N 1.1	150-300	3	EN-AW-5052	-	3.3523	AlMg2,5	A-G2,5C
	N 1.1	180-310	3	EN-AW-5754	-	3.3535	AlMg3	A-G3M
N 1.1	120-350	15	EN-AW-5083	-	3.3547	AlSiMg4,5Mn	A-G4,5MC	
ALUMINIUM-KNETLEGIERUNGEN AUSHÄRTBAR ALUMINIUM WROUGHT ALLOYS -HARDENABLE ALLIAGES D'ALUMINIUM CORROYÉS -DURCISSABLE LEGHE MALL								
N	N 1.1	180-460	8	EN-AW-2011	-	3.1655	AlCuBiPb	A-U5PbBi
	N 1.1	180-310	8	EN-AW-2014	-	3.1255	AlCuSiMn	A-U4SG
	N 1.1	150-400	2	EN-AW-2017A	-	3.1325	AlCuMg1	A-U4G
	N 1.1	180-460	3	EN-AW-2024	-	3.1355	AlCuMg2	A-U4G1



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BS	EN	UNI	UNE	JIS	SIS	AISI SAE ASTM
Grade 260	-	G 25	FG 25	FC 25	01 250	A48-40 B
Grade 300	-	G 30	FG 30	FC 30	1 300	A48-45 B
Grade 350	-	G 35	FG 35	FC 35	1 350	A48-50 B
Grade 400	-	-	-	-	1 400	A48-60 B
L-NUC 15 6 2	-	-	-	-	-	A-436 Type 1
L-NC 20 2	-	-	-	-	-	A-436 Type 2
L-NC 30 3	-	-	-	-	-	A-436 Type 3
L-NSC 30 5 5	-	-	-	-	-	A-436 Type 4
SNG 420/12	-	GS 400-12	GGG 40	FCD 40	0717-02	60-40-18
SNG 500/7	-	GS 500/7	GGG 50	FCD 50	0727-02	65-45-12
SNG 600/3	-	GS 600/3	-	FCD 60	0732-03	80-55-06
SNG 700/2	-	GS 700/2	GGG 70	FCD 70	0737-01	100-70-03
SNG 800/2	-	GS 800/2	-	-	-	120-90-02
S-NiCr 20 2	-	-	F 43000	-	-	A 439 Type D-2
S-NiCr 20 3	-	-	F 43001	-	-	A 439 Type D-2B
S-Ni 22	-	-	F 43002	-	-	A 439 Type D-2C
S-NiMn 23 4	-	-	F 43003	-	-	A 439 Type D-2M
S-NiCr 30 3	-	-	-	-	-	A 439 Type D-3
S-NiCr 30 1	-	-	F 43004	-	-	A 439 Type D-3A
S-NiSiCr 30 5 5	-	-	F 43005	-	-	A 439 Type D-4
S-Ni 35	-	-	F 43006	-	-	A 439 Type D-5
S-NiCr 35 3	-	-	-	-	-	A 439 Type D-5B
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
B340/12	-	-	GTS 35	-	0810	32510
P440/7	-	-	GTS 45	-	0852	40010
P510/4	-	-	GTS 55	-	0854	50005
P570/3	-	-	GTS 65	-	0856	70003
P690/2	-	-	GTS 70	-	0862; 0864	90001
W340/3	-	-	GTW 35	FCMW 330	-	MB 350-4
W410/4	-	GMB 40	GTW 40	FCMW 370	-	MB 400-5
-	-	GMB 45	GTW 45	FCMWP 440	-	MB 450-7
-	-	-	GTW 55	-	-	-
FRITICA (ADI) + GHISE IN CONCHIGLIA						
Grade 2 A	-	-	-	-	0512-00	A532 I B
Grade 2 B	-	-	-	-	0513-00	A532 I A
Grade 2 C	-	-	-	-	-	A532 I D
Grade 3 A	-	-	-	-	-	A532 IIC 15%
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	4509	-	-	-	-
-	-	4508	-	-	-	-
1B	-	4507	L-3051	A1x1	-	-
1C	-	3567	-	-	-	-
LEGHE MALLEABILI DI ALLUMINIO – NON CURABILE						
N31	-	-	-	-	-	3105
N3	-	3568	L-3810	144054	-	-
-	-	-	-	-	-	3568
-	-	-	-	-	-	-
N41	-	5764	L-3350	A2x8	144106	5005
N6	-	3576	-	-	-	-
2L56	-	4574	-	-	-	5052
N5	-	3575	L-3390	-	-	-
N8	-	7790	-	-	-	5083
LEGHE MALLEABILI DI ALLUMINIO -CURABILE						
FC1	-	6362	-	-	-	-
H15	-	-	-	-	-	3581
H14	-	3579	L-3120	-	-	2017
2L97	-	3579	L-3140	A3x4	-	2024







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	R _m [N/mm ²]	A ₅ [%]	Rockwell [HRc]	EN	Brand name	Mat.-Nr.	 DIN	 AFNOR
ALUMINIUM-KNETLEGIERUNGEN AUSHÄRTBAR ALUMINIUM WROUGHT ALLOYS -HARDENABLE ALLIAGES D'ALUMINIUM CORROYÉS -DURCISSABLE LEGHE MALLI								
N	N 1.1	330-370	8			3.1645	AlCu4PbMg	AU4Pb
	N 1.1	120-300	2	EN-AW-2030	-	3.3211	AlMg1SiCu	-
	N 1.1	130-360	2	EN-AW-6061	-	3.2315	AlMgSi1	A-SGM0,7
	N 1.1	130-270	8	EN-AW-6082	-	3.3206	AlMgSi0.5	-
	N 1.1	410-490	3	EN-AW-6060	-	3.4345	AlZnMgCu0.5	AZ 4 GU/9051
	N 1.1	180-560	1	EN-AW-7022	-	3.4365	AlZnMgCu1.5	A-Z5GU
ALUMINIUM-GUSS-LEGIERUNGEN SI < 5% ALUMINIUM CAST ALLOYS SI < 5% FONTES D'ALU SI < 5% LEGHE FUSE DI ALLUMINIO CON SI < 5%								
N	N 1.2	280-300	1	EN-AC-45300	-	3.2134	G-ALSi5Cu1Mg	-
	N 1.2	320-360	5	EN-AC-21000	-	3.1371	G-AlCu4MgTi	A-U5GT
	N 1.2	140-300	2	-	-	3.3241	G-ALMg3Si	-
	N 1.2	170-200	1	EN-AC-51200	-	3.3292	GD-ALMg9	A-G10S
	N 1.2	140-210	4	EN-AC-51000	-	3.3541	GD-ALMg3	A-G3T
ALUMINIUM-GUSS-LEGIERUNGEN SI 5 -12% ALUMINIUM CAST ALLOYS SI 5 -12% FONTES D'ALU SI 5 -12% LEGHE FUSE DI ALLUMINIO CON SI 5 -12%								
N	N 1.2	210-250	3	EN-AC-42000	-	3.2371	G-ALSi7Mg	A-S7G
	N 1.2	230-360	2	EN-AC-43300	-	3.2373	G-ALSi9Mg	A-S9G
	N 1.2	240-350	3	EN-AC-46000	-	3.2163	G-ALSi9Cu3	A-S9U3
	N 1.2	150-340	1	EN-AC-43400	-	3.2381	G-ALSi10Mg	A-S10G
	N 1.2	140-160	1	EN-AC-43200	-	3.2383	G-ALSi10Mg(Cu)	A-S10GU
	N 1.2	150-170	5	EN-AC-44200	-	3.2581	G-ALSi12	A-S13
	N 1.2	150-290	1	EN-AB-47000	-	3.2583	G-ALSi12(Cu)	A-S12U
ALUMINIUM-GUSS-LEGIERUNGEN SI > 12% ALUMINIUM CAST ALLOYS SI > 12% FONTES D'ALU SI > 12% LEGHE FUSE DI ALLUMINIO CON SI > 12%								
N	N 1.3	280-380	5	EN-AC-4032	-	-	ALSi12,5MgCuNi	A-S 12 UGN
	N 1.3	165-370	1	EN-AC-48100	-	-	G-ALSi17Cu4Mg	-
	N 1.3	180-220	1	-	-	-	G-ALSi18CuNiMg	-
	N 1.3	200-240	1	-	-	-	G-ALSi21CuNiMg	-
	N 1.3	230-300	3	-	-	-	G-ALSi25CuNiMg	-
REINKUPFER, NIEDRIGLEGIERTES KUPFER PURE COPPER, LOW ALLOYED COPPER CUIVRE PUR, CUIVRE FAIBLEMENT ALLIÉ RAME PURO, RAME POCO LEGATO								
N	N 2.1	260-550	25	EN-CW-502 L	-	2.0240	CuZn15 (MS85)	CuZn15
	N 2.1	270-490	25	EN-CW-505 L	-	2.0265	CuZn30 (MS70)	CuZn30
	N 2.1	200-360	20	EN-CW-005 A	Cu-ETP	2.0065	E-Cu58	-
	N 2.1	410-620	20	EN-CW-102 C	-	2.1248	CuBe2Pb	CuBe1,9Pb
	N 2.1	400-600	15	EN-CW-101 C	AMCOLOY 83	2.1247	CuBe2	CuBe1,9Pb
	N 2.1	480-650	15	EN-CW-110 C	-	2.0850	CuNi2Be	-
	N 2.1	200-570	25	EN-CW-120 C	-	2.1580	CuZr	-
KUPFER-ZINK-LEGIERUNGEN (MESSING) LANGSPANEND COPPER-ZINC ALLOYS (BRASS) (LONG-CHIPPING) ALLIAGES CUIVRE-ZINC (LAITONS) (COP. LONGS) LEGHE								
N	N 2.1	200-440	20	EN-CW-508 L	-	2.0321	CuZn37	CuZn37
	N 2.1	290-540	30	EN-CW-600 N	-	2.0335	CuZn36Pb1,5 (Ms63)	CuZn35Pb2
	N 2.1	340-480	25	EN-CW-509 L	-	2.0360	CuZn40 (Ms60)	-
	N 2.1	250-340	30	EN-CW-602 N	-	-	CuZn36Pb2As	-
	N 2.1	360-400	25	EN-CW-603 N	-	2.0401	CuZn36Pb3	CuZn36Pb3
	N 2.1	290-480	30	EN-CW-604 N	-	2.0332	CuZn37Pb0,5 (Ms63)	-
KUPFER-ZINK-LEGIERUNGEN (MESSING) KURZSPANEND COPPER-ZINC ALLOYS (BRASS) (SHORT-CHIPPING) ALLIAGES CUIVRE-ZINC (LAITONS) (COP. COURTS) LEGHE								
N	N 2.2	600-820	12	EN-CW-724 R	ECOBRESS	-	CuZn21Si3P	-
	N 2.2	360-560	25	EN-CW-612 N	-	2.0380	CuZn39Pb2 (Ms58)	CuZn39Pb2
	N 2.2	450-620	18	EN-CW-720 R	-	2.0580	CuZn40Mn1Pb	-
	N 2.2	370-410	25	EN-CW-617 N	-	2.0402	CuZn40Pb2 (Ms58)	-
KUPFER-ALU-LEGIERUNGEN LANGSPANEND COPPER-ALUM. ALLOYS (LONG-CHIPPING) ALLIAGES CUIVRE-ALU. (COP. COURTS) / LEGHE RAME-ALLUM. (TRUCIOLO L)								
N	N 2.1	480-590	30	EN-CW-303 G	-	2.0932	CuAl8Fe3	CuAl7Fe2
	N 2.1	300-500	12	EN-CW-352 H	-	2.0872	CuNi10Fe1Mn	-
	N 2.1	480-550	40	-	Ampco 8	-	-	-
KUPFER-ALU-LEGIERUNGEN KURZSPANEND COPPER-ALUM. ALLOYS (SHORT-CHIPPING) ALLIAGES CUIVRE-ALU. (COP. LONGS) / LEGHE RAME-ALLUM. (TRUCIOLO C)								
N	N 2.3	730-760	1	-	Ampco 21	-	-	-
	N 2.3		0	40	-	Ampco 25	-	-
	N 2.3	900-1000	4	-	Ampco M-4	-	-	-
	N 2.2	600-650	15	EN-CC-333 G	-	2.0975	CuAl10Fe5Ni5-C	CuAl10Fe5Ni5
	N 2.2	600-640	15	EN-CW-307 G	-	2.0966	CuAl10Ni5Fe4	CuAl9Ni5Fe3M 1.1
	N 2.2	340-650	25	EN-CW-351 H	-	2.0875	CuNi9Sn2	-
KUPFER-ZINN-LEGIERUNGEN (BRONZE) LANGSPANEND COPPER-TIN ALLOYS (BRONZE) (LONG-CHIPPING) ALLIAGES CUIVRE-ÉTAIN (BRONZE) (COP. LONGS) LEGHE								
N	N 2.1	290-630	25	EN-CW-450 K	-	2.1016	CuSn4	-
	N 2.1	390-620	15	EN-CW-459 K	-	2.1030	CuSn8P	-
	N 2.1	230-320	12	EN-CC-492 K	-	2.1093	CuSn7Zn2Pb3	CuSn7Zn3Pb3
	N 2.1	230-320	12	EN-CC-493 K	-	2.1090.01	CuSn7Zn4Pb7 (Rg7)	CuSn7Pb6Zn4
	N 2.1	280-340	18	EN-CC-494 K	-	2.1086.01	G-CuSn10Zn (Rg10)	-
	N 2.3	770-820	18	-	Ampco 45	-	-	-
KUPFER-ZINN-LEGIERUNGEN (BRONZE) KURZSPANEND COPPER-ALUMINIUM ALLOYS (BRONZE) (SHORT-CHIP.) ALLIAGES CUIVRE-ALU. (BRONZE) (COP. COURTS) LEGHE								
N	N 2.2	180-220	12	EN-CC-490 K	-	2.1098	CuSn3Zn8Pb5	-
	N 2.2	200-250	6	EN-CC-491 K	-	2.1097	CuSn5Zn5Pb5 (Rg5)	CuSn5Pb5Zn5
	N 2.2	250-280	10	EN-CC-480 K	-	2.1050	CuSn10-C	-
	N 2.2	280-300	8	EN-CC-484 K	-	2.1060	CuSn12Ni2-C	-

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	 BS	EN	 UNI	 UNE	 JIS	 SIS	 AISI SAE ASTM
LEGHE DI ALLUMINIO - CURABILE							
	-	-	-	-	-	-	-
	H20	-	-	-	-	-	-
	H30	-	3571	L-3451	-	144212	-
	H9	-	3569	L-3441	A2x5	144103	-
	L86	-	811-04	-	-	-	7050
	2L95	-	3735	-	-	-	7175
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	5080	-	-	-	-
	-	-	3059	-	ADC6	-	-
	LM 1.25	-	G-ALSi7Mg	-	AC4C	-	-
	-	-	3051	-	AC4A	-	-
	LM 1.24	-	5075	-	-	-	-
	LM9	-	3051	L-2560	-	4253	-
	LM 9	-	-	-	-	4253	A 360.2
	LM 6	-	3051	-	AC3	4261	A 413.2
	LM 20	-	3048	-	-	4260	A 413.1
	-	-	-	-	-	-	4032
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	CZ 102	-	-	-	C2300	-	C23000
	CZ 106	-	-	-	C2600	-	C26000
	-	-	-	-	-	-	-
	-	-	CuBe2	-	-	-	-
	-	-	-	-	-	-	-
	-	-	CuZr	-	-	-	-
LEGHE RAME-ZINCO (OTTONE) (TRUCIOLO LUNGO)							
	CZ 108	-	-	-	C2700	-	C27200
	CZ 108	-	P-CuZn35	-	C2700	-	C27000
	DCB1	-	-	-	-	-	C28000
	CZ 132	-	-	-	-	-	C35330
	CZ 124	-	-	-	-	-	-
	-	-	-	-	-	-	-
LEGHE RAME-ZINCO (OTTONE) (TRUCIOLO CORTO)							
	-	-	-	-	-	-	-
	-	-	P-CuZn39Pb2 (P-OT59Pb)	-	-	-	-
	CZ 136	-	-	-	-	-	-
	CZ 122	-	CuZn40Pb2Sn (P-OT58Pb)	-	-	-	-
LEGHE RAME-ALLUMINIO (BRONZO) (TRUCIOLO LUNGO)							
	CA 106	-	P-CuAl8Fe3	-	-	-	-
	-	-	-	-	CNP1	-	C70600
	-	-	-	-	-	-	-
LEGHE RAME-ALLUMINIO (BRONZO) (TRUCIOLO CORTO)							
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	AB2	-	G-CuAl11Fe4Ni4	CuAl110Fe5Ni5, C-4220	AlBC3	Aluminiumbrons	C95800
	CA 104	-	P-CuAl10Fe5Ni5	-	-	-	C6300
	-	-	-	-	-	-	C72500
LEGHE RAME-STAGNO (BRONZO) (TRUCIOLO LUNGO)							
	-	-	-	-	C 5111	-	C51100
	-	-	-	-	C5210	-	C52100
	CuSn7Pb3Zn3	-	-	-	PBC2	-	C92410
	-	-	CuSn7Zn4Pb6	-	-	-	C93200
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
LEGHE RAME-ALLUMINIO (BRONZO) (TRUCIOLO CORTO)							
	LG1	-	-	-	-	-	C83810
	LG2	-	CuSn5Zn5Pb5 (BS ZN 5)	-	H 5111	-	C83600
	CuSn10P (PB4)	-	CuSn10 (10 G-B 10)	-	PBC2	5443	C90700
	CuSn12Ni2 (CT2)	-	-	-	-	-	C91700

INTERNATIONALER WERKSTOFFVERGLEICH

International comparison of materials / Comparatif matieres / Confronto internazionale dei materiali

	R _m [N/mm ²]	A ₅ [%]	Rockwell [HRc]	EN	Brand name	Mat.-Nr.	 DIN	 AFNOR	
ZINK-LEGIERUNGEN ZINC ALLOYS CUIVRE-ZINC LEGHE ZINCO									
N	N 3.1	300	6	-	ZAMAK	-	ZnAl4 (Z400)	Z-A4	
	N 3.1	330	4	-	ZAMAK	-	ZnAl4Cu1 (Z410)	Z-A4UI	
	N 3.1	400	6	-	ZAMAK	-	ZnAl4Cu3 (Z430)	Z-A4U3	
MAGNESIUM-LEGIERUNGEN MAGNESIUM WROUGHT ALLOYS ALLIAGES DE MAGNÉSIO CORROYÉS LEGHE MALLEABILI DI MAGNESIO									
N	N 4.1	260-280	9	EN-MG-P-63	-	3.5612	MgAl6Zn	-	
	N 4.1	200-260	4	EN-MB-21120	-	3.5912	G-MgAl9Zn1	-	
	N 4.1	230-250	10	EN-MG-P-62	-	3.5314	MgAl3Zn	G-A3 Z1	
	N 4.1	200-230	8	EN-MG-P-43	-	-	MgZn3Zr	G-A7 Z1	
	N 4.1	220-250	8	-	-	3.5161	MgZn6Zr	-	
KUNSTSTOFFE SYNTHETICS PLASTIQUES MATERIE PLASTICHE									
N	N 5.1	-	-	-	PMMA	-	-	-	
	N 5.1	-	-	-	POM	-	-	-	
	N 5.1	-	-	-	PVC	-	-	-	
	N 5.2	-	-	-	Bakelit	-	-	-	
	N 5.2	-	-	-	Pertinax	-	-	-	
FASERVERSTÄRKTE KUNSTSTOFFE FIBRE-REINFORCED SYNTHETICS PLASTIQUES CHARGÉES EN FIBRES RESINE EPOSSIDICHE									
N	N 5.2	155-365	-	-	-	GFK	-	-	
	N 5.2	190-210	-	-	-	CFK uni.	-	-	
	N 5.2	190-210	-	-	-	CFK milti.	-	-	
	N 5.2	-	-	-	-	AFK	-	-	
NICKEL-/KOBALT-/EISEN-LEGIERUNGEN NICKEL-/COBALT-/IRON -ALLOYS ALLIAGES NICKEL/COBALT RÉFRACAIRES LEGHE NICHEL/COBALTO RESISTENTI AL COLO									
S	S 1.1	490-560	30	-	Invar 36	1.3912	Ni36	-	
	S 1.1	500-600	30	-	Invar 42	1.3917	Ni42	-	
	S 1.1	500- 700	35	-	Monel 400	2.4360	NiCu30Fe	Nu 30	
	S 1.1	620- 850	17	-	Monel K-500	2.4375	NiCu30Al	Nu 30 AT	
	S 1.2	1100-1300	15	-	Nimonic 901	2.4662	NiCr13Mo6Ti3	-	
	S 1.2	850-1700	30	-	Hastelloy C276	2.4819	NiMo16Cr15	-	
	S 1.2	700-1000	40	-	Hastelloy B	2.4685	G-NiMo28	-	
	S 1.2	800-1700	40	-	Hastelloy C-4	2.4610	NiMo16Cr16Ti	-	
	S 1.2	700-1000	40	-	Hastelloy B-2	2.4617	G-NiMo30	-	
	S 1.2	700-1500	26	-	Nimonic 75	2.4630	NiCr20Ti	NC 20 T	
	S 1.2	980-1150	8	-	Alloy X-750	2.4669	NiCr15Fe7TiAl	-	
	S 1.2	890-1600	30	-	Inconel 625	2.4856	NiCr22Mo9Nb	NC 22 FeDNb	
	S 1.2	800-1000	12	-	Nimonic 80 A	2.4631	NiCr20TiAl	-	
	S 1.2	1100-1600	12	-	Inconel 718	2.4668	NiCr19FeNbMo	NC 19Fe Nb	
	S 1.2	1100-1300	21	-	René 41	2.4973	NiCr19Co11MoTi	NC19KDT	
	S 1.2	800-1600	20	-	Waspaloy	2.4654	NiCr20Co14MoTi	NC20K14	
	S 1.2	1100-1300	17	-	Nimonic 90	2.4632	NiCr20Co18Ti	NC20ATV	
	S 1.2	1000-1200	22	-	Nimonic 105	2.4634	NiCo20Cr15MoAlTi	NCKD20ATV	
	S 1.2	830-1130	25	-	Alloy L-605 / L25	2.4964	CoCr20W15Ni	-	
	S 1.2	900-1200	12	-	-	2.4979	CoCr28Mo6	-	
REINTITAN, TITANLEGIERUNGEN PURE TITANIUM, TITANIUM ALLOYS TITANE PUR, ALLIAGES DE TITANE TITANIO PURO, LEGHE DI TITANIO									
S	S 2.1	290-410	30	-	-	3.7025	Ti99.5 Ti Gr.1	AIR:9182T60	
	S 2.1	380-540	20	-	-	3.7035	Ti99.4 Ti Gr.2	-	
	S 2.1	460-590	18	-	-	3.7055	Ti99.3 Ti Gr.3	-	
	S 2.1	540-740	16	-	-	3.7065	Ti99.2 Ti Gr.4	-	
	S 2.1	390-540	20	-	-	3.7235	Ti 2 Pd Ti Gr.2Pd	-	
	S 2.2	800-1000	10	-	-	3.7165	TiAl6V4 Ti Gr. 5	T-A6V	
	S 2.2	860-1100	18	-	Tikrutan	3.7110	TiAl5Fe2.5	-	
	S 2.2	900-1100	13	-	-	-	Ti8Al1Mo1V	-	
	S 2.2	800-1000	18	-	-	3.7115	TiAl5Sn2,5	T-A5E	
	S 2.2	1100-1250	10	-	-	-	Ti-6Al-2Sn-4Zr-6Mo	-	
	S 2.2	1200-1300	11	-	-	-	Ti-6Al-2Sn-2Zr-2Mo-2Cr-0.25Si	-	
	S 2.2	1050-1200	9	-	-	3.7185	TiAl4Mo4Sn2	-	
GEHÄRTETE STÄHLE HARDENED STEELS ACIERS TRAITÉS ACCIAI TEMPRATI									
H	H 1.1	-	-	44-50	-	Strenx 1300	-	-	
	H 1.1	-	-	49-51	-	Hardox 500 Tuf	-	-	
	H 1.1	-	-	47-52	-	Hardox 500	-	-	
	H 1.1	-	-	53-55	-	Hardox 550	-	-	
	H 1.2	-	-	54-60	-	Hardox 600	-	-	
	H 1.2	-	-	57-63	-	Hardox Extreme	-	-	
	H 1.3	-	-	62-64	-	FeTiC Nikro	-	-	



