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NICKEL BASE ALLOYS – MATERIAL DATA SHEET

SCHOELLER | NOV 2024

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Nickel base alloys

The specified mechanical properties refer to an annealed tube version. Other comparable materials are available upon request.

Steel grade	Standard	Descr.	C max. [%]	Cr [%]	Mo [%]	Ni [%]	Others [%]	Rp0,2 min. [MPa]	Rm min. [MPa]	A5 min. [%]
2.4068	VdTÜV - Wb345	Alloy 201	0.020	-	-	≥ 99.00	Fe to 0.40 / Cu to 0.25 / Mg to 0.15 / Ti to 0.10	80	350 - 540	40
2.4360	VdTÜV - Wb263	Alloy 400	0.160	-	-	≥ 63.00	Fe 1.00 - 2.50 / Cu 28.00 - 34.00 / Al to 0.50	175	450 - 600	30
2.4602	VdTÜV - Wb479	Alloy C-22	0.010	20.00 - 22.50	12.50 - 14.50	Rest	Fe 2.00 - 6.00 / Co to 2.50 / W 2.50 - 3.50 / V to 0.35	310	690 - 950	45
2.4605	VdTÜV - Wb505	Alloy 59	0.010	22.00 - 24.00	15.00 - 16.50	Rest	Fe to 1.50 / Co to 0.30 / Al 0.10 - 0.40 / Cu to 0.50	340	690 - 900	40
2.4606	VdTÜV - Wb515	Alloy 686	0.010	19.00 - 23.00	15.00 - 17.00	Rest	Fe to 2.00 / W 3.00 - 4.40 / Co to 0.5 / Ti 0.02 - 0.25	310	690	45
2.4610	VdTÜV - Wb424	Alloy C-4	0.009	14.50 - 17.50	14.00 - 17.00	Rest	Fe to 3.00 / Co to 2.00 / Ti to 0.70	305	700 - 900	40
2.4617	VdTÜV - Wb436	Alloy B-2	0.010	≤ 1.00	26.00 - 30.00	Rest	Fe to 2.00 / Co to 1.00	340	755 - 1000	40
2.4633	DIN 17742	Alloy 602 CA	0.150 - 0.250	24.00 - 26.00	-	Rest	Al 1.80 - 2.40 / Cu to 0.10 / Fe 8.00 - 11.00 / Ti 0.10 - 0.20 / Y 0.05 - 0.12 / Zr 0.01 - 0.10	270	650	30
2.4663	VdTÜV - Wb485	Alloy 617	0.050 - 0.100	20.00 - 23.00	8.00 - 10.00	Rest	Co 10.00 - 13.00 / Ti 0.20 - 0.50 / Al 0.50 - 1.50 / Fe to 2.00	300	700 - 950	35

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2.4692	VdTÜV - Wb583/1	Alloy 31 Plus®	0.010	26.00 - 27.00	6.00 - 7.00	33.50 - 35.00	Fe Rest / Mn 1.00 - 4.00 / Cu 0.50 - 1.50 / N 0.10 - 0.25 / Al to 0.30	280	650 - 850	40
2.4700	VdTÜV - WB586	Alloy 2120 MoN	0.010	20.00 - 23.00	18.50 - 21.00	Rest	Cu to 0.50 / Al to 0.40 / W to 0.30 / Co to 0.30 / Fe to 1.5 / N 0.02 - 0.15	360	760	40
2.4816	VdTÜV - Wb305	Alloy 600	0.100	14.00 - 17.00	-	≥ 72.00	Fe 6.00 - 10.00 / Cu to 0.50 / Ti to 0.30 / Al to 0.30	180	500 - 700	35
2.4819	VdTÜV - Wb400	Alloy C-276	0.010	14.50 - 16.50	15.00 - 17.00	Rest	Fe 4.00 - 7.00 / Co to 2.50 / W 3.00 - 4.50 / V to 0.35	310	730 - 1000	30
2.4851	DIN 17742	Alloy 601	0.100	21.00 - 25.00	-	58.00 - 63.00	Al 1.00 - 1.70 / B to 0.006 / Cu to 0.50 / Fe to 18.00 / Ti to 0.50	205	550	30
2.4856	VdTÜV - Wb499	Alloy 625	0.030	21.00 - 23.00	8.00 - 10.00	Rest	Co to 1.00 / Fe to 5.00 / Ti to 0.40 / Al to 0.40 / Nb+Ta 3.20 - 3.80	400	830 - 1000	35
2.4858	VdTÜV - Wb432/2	Alloy 825	0.025	19.50 - 23.50	2.50 - 3.50	38.00 - 46.00	Fe Rest / Cu 1.50 - 3.00 / Ti 0.60 - 1.20 / Al to 0.20	235	550 - 750	30