

Aluminium alloys(drawing material) chemical properties standard.

Material	Temper	Tension quality				Brinell hardness (10/500)	Shearing strength (N/mm ²)	Fatigue strength ① (N/mm ²)	Vertical elasticity coefficient ②×1000 (kg/mm ²)
		Tensile strength (N/mm ²)	Proof stress (N/mm ²)	Elongation (%)					
				Sheet (1.6mm thickness)	Bar (12.7mmφ)				
1N99	O	45	25	-	52	-	-	7.0	
	H18	120	115	-	5	31	70	40	7.0
1N90	O	65	28	-	51	17	-	7.0	
	H14	85	70	-	25	23	55	30	7.0
	H18	120	115	-	5	31	70	40	7.0
1080	O	68	29	50	-	18	-	7.0	
	H12	70	55	18	-	19	50	20	7.0
	H14	85	65	14	-	23	55	30	7.0
	H16	100	75	8	-	26	60	35	7.0
	H18	120	115	6	8	31	70	40	7.0
1070	O	68	30	45	50	18	-	7.0	
	H14	100	90	12	15	26	65	35	7.0
	H18	130	125	6	8	35	75	45	7.0
1060	O	70	30	43	-	19	50	20	7.0
	H12	85	75	16	-	23	55	30	7.0
	H14	100	90	12	-	26	60	35	7.0
	H16	115	105	8	-	30	70	45	7.0
	H18	130	125	6	-	35	75	45	7.0
1050	O	70	30	43	-	19	50	20	7.0
	H12	85	75	16	-	23	55	30	7.0
	H14	100	90	12	-	26	65	35	7.0
	H16	110	105	8	-	30	70	45	7.0
	H18	135	125	6	-	35	75	45	7.0
	H22	110	80	22	-	30	70	35	7.0
	H24	120	115	18	-	31	70	40	7.0
1100	O	90	35	35	42	23	60	35	7.0
	H12	110	105	12	22	28	70	40	7.0
	H14	125	115	9	18	32	75	50	7.0
	H16	145	140	6	15	38	85	60	7.0
	H18	165	150	5	13	44	90	60	7.0
	H22	115	85	22	-	30	70	40	7.0
	H24	140	120	15	-	35	85	55	7.0
1200	O	95	40	28	35	24	60	35	7.0
	H12	115	110	9	18	30	70	40	7.0
	H14	130	120	6	10	35	75	50	7.0
	H16	150	145	4	8	40	85	60	7.0
	H18	170	155	4	6	46	90	60	7.0
FK35③	O	85	35	-	35	23	60	35	7.0
	H14	120	110	-	6	31	70	40	7.0
	H18	160	145	-	3	43	90	60	7.0
2014	O	185	95	-	16	45	125	90	7.5
	T4.T451	425	290	-	18	105	260	140	7.5
	T6.T651	485	415	-	11	135	290	125	7.5
2017	O	180	70	-	20	45	125	90	7.4
	H14	220	120	-	3	55	153	100	7.4
	T4.T451	425	275	-	20	105	260	125	7.4
	T6.T8	440	380	-	15	107	270	128	7.4
2024	O	185	75	20	20	47	125	90	7.5
	H14	210	95	-	3	52	150	-	7.5

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		Tensile strength (N/mm ²)	Proof stress (N/mm ²)	Elongation (%)					
				Sheet (1.6mm thickness)	Bar (12.7mmφ)				
2024	T3	485	345	18	-	120	285	140	7.5
	T4.T351	470	325	20	17	120	285	140	7.5
	T361④	495	395	13	-	130	290	125	7.5
2117	T4	295	165	-	24	70	195	95	7.2
3003	O	110	40	30	37	28	75	50	7.0
	H12	130	125	10	18	35	85	55	7.0
	H14	150	145	8	14	40	95	60	7.0
	H16	175	170	5	12	47	105	70	7.0
	H18	200	185	4	9	55	110	70	7.0
	H24	150	120	24	-	40	95	60	7.0
	H26	180	150	18	-	45	105	70	7.0
3004	O	180	70	20	22	45	110	95	7.0
	H32	215	170	10	15	52	115	105	7.0
	H34	240	200	9	10	63	125	105	7.0
	H36	260	230	5	8	70	140	110	7.0
	H38	285	250	5	5	77	145	110	7.0
3005	O	125	40	25	-	32	70	45	7.0
	H14	155	145	18	-	43	90	60	7.0
	H18	205	190	6	-	52	115	70	7.0
3103	O	110	65	40	-	30	70	45	7.0
	H12	130	125	17	14	35	75	50	7.0
	H14	155	140	11	-	43	90	60	7.0
	H16	180	160	8	7	47	105	70	7.0
	H18	200	185	7	-	51	110	70	7.0
3105	O	115	55	24	-	-	85	-	7.0
	H12	150	130	7	-	-	95	-	7.0
	H14	170	150	5	-	-	105	-	7.0
	H16	195	170	4	-	-	110	-	7.0
	H18	215	195	3	-	-	115	-	7.0
	H25	180	160	8	-	-	105	-	7.0
3203	O	95	35	23	-	24	60	35	7.0
	H12	120	85	9	-	31	70	40	7.0
	H14	135	120	8	-	35	75	45	7.0
	H16	165	145	4	-	44	90	60	7.0
	H18	185	165	4	-	48	110	70	7.0
4032	O	180	140	-	12	45	-	-	8.0
	T6	380	315	-	9	120	260	110	8.0
4043	O	115	60	-	27	30	-	-	-
	H14	190	180	-	5	48	-	-	-
4047	O	140	80	-	23	37	-	-	-
	H14	190	180	-	5	48	-	-	-
5005	O	125	40	25	-	28	75	-	7.0
	H12	140	130	10	-	-	95	-	7.0
	H14	160	150	6	-	-	95	-	7.0
	H16	180	170	5	-	-	105	-	7.0
	H18	200	195	4	-	-	110	-	7.0
	H32	140	115	11	-	36	95	-	7.0
	H34	160	140	8	-	41	95	-	7.0
	H36	180	165	6	-	46	105	-	7.0

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		Tensile strength (N/mm ²)	Proof stress (N/mm ²)	Elongation (%)					
				Sheet (1.6mm thickness)	Bar (12.7mmφ)				
5005	H38	200	185	5	-	51	110	-	7.0
5052	O	195	90	25	27	47	125	110	7.2
	H18	285	270	4	-	75	160	135	7.2
	H32	230	195	12	16	60	140	115	7.2
	H34	260	215	10	12	68	145	125	7.2
	H36	275	240	8	9	73	160	130	7.2
	H38	290	255	7	7	77	165	140	7.2
FK50③	O	240	130	22	-	63	140	120	7.2
5056	O	290	150	-	32	65	180	140	7.2
	H18	435	405	-	9	105	235	150	7.2
	H34	304	240	-	25	68	185	146	7.2
	H38	415	345	-	13	100	220	150	7.2
5082	O	275	135	22	-	-	-	-	-
	H34	330	215	16	-	-	-	-	-
	H38	365	300	8	-	-	-	-	-
5083	O	290	145	-	20	-	170	-	7.2
	H32,H116	315	230	-	14	-	-	160	7.2
5086	O	260	115	22	-	-	165	-	7.2
	H32,H116	290	205	12	-	-	-	-	7.2
	H34	325	255	10	-	-	185	-	7.2
	H112	270	130	14	-	-	-	-	7.2
5154	O	240	115	27	-	58	150	115	7.2
	H32	270	205	15	-	67	150	125	7.2
	H34	290	230	13	-	73	165	130	7.2
	H36	310	250	12	-	78	180	140	7.2
	H38	330	270	10	-	80	195	145	7.2
	H112	240	115	25	-	63	-	115	7.2
5183	O	330	280	-	18	80	-	-	-
	H14	360	315	-	15	105	-	-	-
5254	O	240	115	27	-	58	150	115	7.2
	H32	270	205	15	-	67	150	125	7.2
	H34	290	230	13	-	73	165	130	7.2
	H36	310	250	12	-	78	180	140	7.2
	H38	330	270	10	-	80	195	145	7.2
	H112	240	115	25	-	63	-	115	7.2
5351	O	165	120	-	23	44	-	-	-
	H14	205	200	-	5	52	-	-	-
5356	O	290	240	-	21	73	-	-	-
	H14	345	310	-	8	95	-	-	-
	H18	360	310	-	6	105	-	-	-
5454	O	250	115	22	-	62	160	-	7.2
	H32	275	205	10	-	73	165	-	7.2
	H34	305	240	10	-	81	180	-	7.2
	H111	260	180	14	-	70	160	-	7.2
	H112	250	125	18	-	62	160	-	7.2
6056	O	185	150	-	20	48	110	70	7.0
	H12	215	200	-	12	52	115	95	7.0
	H18	260	250	-	4	70	145	-	7.0
	T6	420	375	-	12	-	-	-	7.0

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				Sheet (1.6mm thickness)	Bar (12.7mmφ)				
6061	O	125	55	25	27	30	85	60	7.0
	T4.T451	240	145	22	22	65	165	95	7.0
	T6.T651	310	275	12	15	95	205	95	7.0
	T8	360	320	-	24	105	-	-	