Mechanical Properties for Standard Alloys

Alloy / Brand Name / EN AW / EN 573-3	Temper EN 512 (DIN)		Mech. Values EN 485-2 Tensile strength R_m(MPa) min.-max.	Proof stress $R_{p0.2}$(MPa) min.-max.	Elongation min. A_{50} (%) for nom. gauges over 0.2 0.5 1.5 3.0 6.0 / up to 0.5 1.5 3.0 6.0 10.0	min. Bending Radius Factor for nominal gauges and bending up to 90° over 0.2 0.5 1.5 3.0 6.0 / up to 0.5 1.5 3.0 6.0 10.0 (Radius=F x nom. gauge)
					(below mentioned max. gauges not always correspond to production facilities)	
3105	0/H111		100-155	40	14 15 17	0 0 0.5
(Al Mn0.5 Mg0.5)	H12		130-180	105 (min. 0.7 mm)	3 4 4	1.5 1.5 1.5
	H22		130-180	105	6 6 7	
density:	H14		150-200	130	2 2 2	2.5 2.5 2.5
2.711 t/m³	H24		150-200	120	4 4 5	2.5 2.5 2.5
	H16		175-225	160	1 2 2	
	H26		175-225	150	3 3 3	
	H18		195	180	1 1 1	
	H28		195	170	2 2	
	H19		215	190	1 1	
J57S						
5005	H12	(F13)	125-165	95 (min 0.8 mm)	-- -- 5*	-- -- 1.0
(Al Mg1-B) EQ	H14	(F15)	145-185	120	2 3 --	1.0 1.0 --
density: 2.695 t/m³						
B57S						
5005A	H12	(F13)	125-165	95	-- -- 5*	-- -- 1.0
(Al Mg1-C) EQ	H14	(F15)	145-185	120	2 3 --	1.0 1.0 --
density: 2.695 t/m³						
5005A	0/H111	(W11)	100-145	35	15 19 20 22 24	0 0 0 1.0 1.5
(Al Mg1-C)	H12	(F13)	125-165	95 (min 0.7 mm)	-- 2 4 5	0 0.5 1.0 1.0
	H22/32	(G13)	125-165	80	4 5 6 8	0 0.5 1.0 1.0
density:	H14	(F15)	145-185	120	2 2 3 4	0.5 1.0 1.0 2.0
2.693 t/m³	H24/34	(G15)	145-185	110	3 4 5 6	0.5 1.0 1.0 2.0
	H16	(F17)	165-205	145	1 2 3 3*	1.0 1.5 2.0 2.5*
	H26/36	(G17)	165-205	135	2 3 4 4*	1.0 1.5 2.0 2.5*
	H18	(F19)	185	165	1 2 2	1.5 2.5 3.0
	H28/38	(G19)	185	160	1 2 3	1.5 2.5 3.0
	H19	(F21)	205	185	1 2	
5049	0/H111	(W19)	190-240	80	12 14 16 18 18	0 0.5 1.0 1.0 2.0
(Al Mg2 Mn0.8)	H12	(F22)	220-270	170	4 5 6 7	
	H22/32	(G22)	220-270	130	7 8 10 11	0.5 1.0 1.5 1.5
density:	H14	(F24)	240-280	190	3 3 4 4	
2.698 t/m³	H24/34	(G24)	240-280	160	6 6 7 8	1.0 1.5 2.0 2.5
	H16	(F27)	265-305	220	2 3 3	
	H26/36	(G27)	265-305	190	4 4 5 6	1.5 2.0 3.0
	H18	(F29)	290	250	1 2	
	H28/38		290	230	3 3	
5251	0/H111	(W16)	160-200	60	13 14 16 18 18	0 0 0.5 1.0 2.0
(Al Mg2)	H12	(F19)	190-230	150	3 4 5 8	0 1.0 1.0 1.5
	H22/32		190-230	120	4 6 8 10	0 1.0 1.0 1.5
density:	H14	(F21)	210-250	170	2 2 3 4	0.5 1.5 1.5 2.5
2.684 t/m³	H24/34	(G21)	210-250	140	3 5 6 8	0.5 1.5 1.5 2.5
	H16	(F23)	230-270	200	1 2 3 3*	1.0 1.5 2.0
	H26/36	(G23)	230-270	170	3 4 5	1.0 1.5 2.0
	H18	(F26)	255	230	1 2	
	H28/38		255	200	2 3 3	
5052	0/H111	(W17)	170-215	65	12 14 16 18 19	0 0 0.5 1.0 2.0
(Al Mg2.5)	H12	(F21)	210-260	160	4 5 6 8	
	H22/H32	(G21)	210-260	130	5 6 7 10	0.5 1.0 1.5 1.5
density:	H14	(F23)	230-280	180	3 3 4 4	
2.674 t/m³	H24/H34	(G23)	230-280	150	4 5 6 7	0.5 1.5 2.0 2.5
	H16	(F25)	250-300	210	2 3 3 3	
	H26/H36	(G25)	250-300	180	3 4 5 6	1.5 2.0 3.0 3.5
	H18	(F27)	270	240	1 2 2	
	H28/H38	(G27)	270	210	3 3	
5454	0/H111		215-275	85	12 13 15 17 18	0.5 0.5 1.0 1.5 2.5
(Al Mg3 Mn)	H12		250-305	190	3 4 5 6	
	H22/32	(G25)	250-305	180	5 6 7 8	0.5 1.0 2.0 2.5
density:	H14		270-325	220	2 3 3 4	
2.682 t/m³	H24/34	(G27)	270-325	200	4 5 6 7	1.0 2.0 2.5 3.0
	H26/36		290-345	230	3 3 4	
	H28/38		310	250	3 3	

* marked values are valid for gauges over 3 mm up to 4 mm