Aluminum alloys

Alloy * Material number	Condition	Comparable	Wall thickness [mm]	Minimum tensil strength R_m [Mpa]	Yield strength $R_{p0,2}$ [Mpa], min	Elongation A [%], min	Elongation A_{50mm} [%], min	Hardness typical value HBW	Electric conduc-tivity [MS/m]	Electric resistance [nΩm]	Thermal conduc-tivity at 20° [W/mK]	Specific heat capacity [J/kgK]	Note
EN AW-6060 3.3206	**T4**	AlMgSi0,5 F13	≤ 25	120	60	16	16	50	**28 - 34**	**32**	**200**	**901**	**Typical applications:** Electrical conductors, heat sinks, windows, doors and facade-profiles, trucks and trailers
	T5		≤ 5	160	120	8	6	60					
			5 < t ≤ 25	140	100	8	6	60					
	T6		≤ 5	190	150	8	6	70					
			5 < t ≤ 25	170	140	8	6	70					
	T64	AlMgSi0,5 F18	≤ 15	180	120	12	10	60					
	T66	AlMgSi0,5 F22	≤ 5	215	160	8	6	75					
			5 < t ≤ 25	195	150	8	6	75					
EN AW-6063 3.3206	**T4**	AlMgSi0,5 F15	≤ 25	130	65	14	12	50	**28 - 34**	**35**	**201**	**901**	**Typical applications:** Electrical conductors, heat sinks, windows and doors, building & construction industry, trucks and trailers
	T5		≤ 10	175	130	8	6	65					
			10 < t ≤ 25	160	110	7	5	65					
	T6		≤ 10	215	170	8	6	75					
			10 < t ≤ 25	195	160	8	6	75					
	T64	AlMgSi0,5 F18	≤ 15	180	120	12	10	65					
	T66	AlMgSi0,5 F25	≤ 10	245	200	8	6	80					
			10 < t ≤ 25	225	180	8	6	80					
EN AW-6005A 3.3210	**T4 open profile**	AlMgSi0,7 F20	≤ 25	180	90	15	13	50	**26 - 32**	**36**	**176**	**898**	**Typical applications:** Structural elements in trucks and busses and railway industrie, sailboat masts
	T6 open profile	AlMgSi0,7 F27	≤ 5	270	225	8	6	90					
			5 < t ≤ 10	260	215	8	6	85					
			10 < t ≤ 25	250	200	8	6	85					
	T4 hollow profile	AlMgSi0,7 F20	≤ 10	180	90	15	13	50					
	T6 hollow profile	AlMgSi0,5 F27	≤ 5	255	215	8	6	85					
			5 < t ≤ 15	250	200	8	6	85					
EN AW-6082 3.2315	**T4**	AlMgSi1 F21	≤ 25	205	110	14	12	35	**24 - 32**	**41**	**150**	**897**	**Typical applications:** Scaffolding, structural parts automotive
	T5 open profile	AlMgSi1 F28	≤ 5	270	230	8	6	90		**39**	**172**		
	T6 open profile	AlMgSi1 F31	≤ 5	290	250	8	6	95					
			5 < t ≤ 15	310	260	10	8	95					
	T5 hollow profile	AlMgSi1 F28	≤ 5	270	230	8	6	90					
	T6 hollow profile	AlMgSi1 F31	≤ 5	290	250	8	6	95					
			5 < t ≤ 15	310	260	10	8	95					

* All alloys:
Density: 2,7 kg/dm³
Linear expansion coefficient: 23 x 10-6/°C
Modulus of elasticity: 70 000 Mpa
Shear modulus: 27 000 Mpa
Poisson's constant: 0,345

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