Alloy grade	Average coefficient of thermal expansion (20-100℃) E-6/℃	Approximate melting temperature ℃	Status	Thermal conductivity (25℃) W/m·K	Remark			
1060	23.6	645~655	O	234	Aluminum alloy heat treatment basic quality mark			
			H18	230	Basic notation	Definition	Implication	
1100	23.6	643~655	O	222	F	Extrusion condition	The state in which a material is extruded without any cold working or heat treatment	
			H18	218	O	Annealed condition	The material is annealed to its softest state	
1350	23.75	645~655	All	234	H	Work hardening condition	The material is cold processed to obtain a harder material state	
2011	22.9	540~643	T3	151	W	Solid solution state	The state in which a material has not been fully natural aged after solution treatment	
			T8	172	T	Heat treatment condition	The combination state of machining hardening through different solution treatment and aging treatment	
2014	23.0	507~638	O	193	Aluminum alloy heat treatment quality mark			
			T4	134	Subdivision mark	Implication	Detailed quality mark	Detailed qualitative description
			T6	154	T1	After extrusion, it is cooled rapidly by air and then treated by natural aging		
2017	23.6	513~640	O	193				
			T4	134				
2018	22.3	507~638	T61	154	T2	After extrusion, it is cooled rapidly by air but processed by cold and then treated by natural aging		
2024	23.2	500~638	O	193				
			T3,T4,T361	121				
			T6,T81,T861	151			T31	In order to increase the strength after the solid solution treatment, the section reduction rate is about 1% of cold processing, and then natural aging treatment
2025	22.7	520~640	T6	154			T351	For cold working to increase the phase after solid solution treatment, TX51 is applied to permanent deformation stretching to remove the participating stress and then subjected to natural aging, but little deformation is allowed after stretching
2036	23.4	555~650	T4	159				

2117	23.75	555~650	T4	154	T3	After solid solution treatment, cold processing and natural aging treatment	T3511	After solid solution treatment, TX511 is permanently deformed and stretched to remove residual stress and then subjected to natural aging for cold working to increase strength. However, little deformation is allowed after stretching
2124	22.9	500~638	T581	152				
2218	22.3	505~635	T72	154			T361	In order to increase the strength after solid solution treatment, cold processing with a section reduction rate of about 6%, and then natural aging treatment
2219	22.3	543~643	O	172			T37	After solid solution treatment, the strength of the tail is increased, and the section reduction rate is about 7%, and then the natural aging treatment
			T31,T37	112	T4	Natural aging treatment after solid solution treatment	T42	After solid solution treatment, it reaches a very stable state through sufficient natural aging
			T6,T81,T87	121			T451	After solid solution treatment, the residual stress is removed by stretching with permanent deformation of TX51 and then subjected to natural aging
2618	22.3	550~638	T6	147			T4511	After the solid solution treatment, the permanent deformation of more than 1% and less than 3% is applied to the tensile processing to remove the residual stress, and then through natural aging, but the slight processing deformation is allowed after the tensile processing
3003	22.3	643~655	O	193				
			H12	163	T5	After extrusion, it is cooled by air rapidly and then treated by artificial aging		
			H14	159				
			H18	154				
30034	23.9	630~655	All	163	T6	After solid solution treatment, artificial aging treatment was performed	T61	In order to prevent the deformation of quenched water, water is blown under warm water and then artificially aged
3105	23.6	635~655	All	172			T62	After solid solution treatment, it is artificially aged
4032	19.4	532~570	O	154			T651	After solid solution treatment, TX51 is permanently deformed by tensile processing to remove residual stress, and then artificially aged
			T6	138			T6511	After solid solution treatment, TX511 is permanently deformed by stretch processing to remove residual stress, and then subjected to artificial aging
4043	22.1	575~632	O	163			T652	After solid solution treatment, TX52 was permanently deformed under compression to remove residual stress, and then artificially aged
4045	21.5	575~600	All	172	T7	After solid solution treatment, it is stabilized	T73	After solid solution treatment, the best stress corrosion cracking resistance and aging treatment are carried out
4343	21.6	577~613	All	180			T7352	After solid solution treatment, TX52 was compressed with permanent deformation to remove residual stress, and then overaged with T73
5005	23.75	632~655	All	200			T74	After solid solution treatment, the stress corrosion cracking resistance is adjusted to make the over-aging treatment between T73 and T76

5050	23.75	625~650	All	193			T76	The best stripping corrosion resistance is obtained after solid solution treatment, and the aging treatment is carried out
5052	23.75	607~650	All	138			T81	After solid solution treatment, cold working was applied to increase the strength of the section shrinkage of about 1%, and then artificial aging
5056	24.1	568~638	O	117	T8	After solid solution treatment, cold processing and artificial aging treatment	T83	After solid solution treatment, a cold working process with 3% reduction in section was applied to increase the strength, and then artificial aging was performed
			H38	108			T851	After solid solution treatment, the permanent deformation of TX51 is stretched to increase the strength to remove the residual stress, and then subjected to artificial aging
5083	23.75	590~638	O	117			T852	After the solid solution treatment, the tensile process is applied to increase the permanent deformation of TX52 to remove the residual stress, and then artificial aging
5086	23.75	585~640	All	125			T861	After solid solution treatment, cold working was applied to increase the strength of the section shrinkage of about 6%, and then artificial aging
5154	23.9	593~643	O	125			T87	In order to increase the strength of the solid solution treatment, cold processing is applied to reduce the section shrinkage of about 7%, and then artificial aging treatment
5252	23.75	607~650	O	138	T9	After solid solution treatment, artificial aging treatment and cold processing		
5254	23.9	593~643	O	125				
5356	24.1	570~645	All	117				
5454	23.6	600~645	O	134	T10	After extrusion, it is cooled by air rapidly, and then processed by cold and then treated by artificial aging		
			H38	134				
5456	23.9	568~638	O	117				
5457	23.75	630~655	All	176				
5652	23.75	607~650	All	138				
5657	23.75	638~657	All	205				
6005	23.4	610~655	T1	180				
			T5	190				
6053	23	575~650	O	180				
			T4	154				
			T6	163				
6061	23.6	580~650	O	180				
			T4	154				
			T6	167				
6063	23.4	615~655	O	218				
			T1	193				
			T5	209				
			T6,T83	200				
6066	23.2	565~645	O	154				
			T6	147				

6070	——	565~650	T6	172
6101	23.4	620~655	T6	218
			T61	222
			T63	218
			T64	226
			T65	218
6105	23.4	600~650	T1	176
			T5	193
6151	23.2	590~650	O	205
			T4	163
			T6	172
6201	23.4	607~655	T81	205
6262	23.4	580~650	T9	172
6351	23.4	555~650	T6	176
6463	23.4	615~655	T1	193
			T5	209
			T6	200
6951	23.4	615~655	O	213
			T6	198
7049	23.4	475~635	T73	154
7050	24.1	490~630	T74	157
7072	23.6	640~655	O	22
7075	23.6	475~635	T6	130
7175	23.4	475~635	T74	156
7178	23.4	475~630	T6	125
7475	23.2	475~635	T6,T651	138
			T76,T761	147
			T7351	163
8030	23.6	645~655	H221	230
8176	23.6	645~655	H24	230

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