

Alloy Series	Major Alloying Constituents	Common Alloys in Series	Recommended Maximum Thickness for Hard Anodize	General Comments for Alloy Series
1000	none	1100	0.033"	Good for cosmetic appearance for clear & dyed anodize
2000	copper (Cu)	2011	0.0015"	Generally not suitable for hardcoat. Susceptible to burning
		2014	0.0015"	(requires customer release of liability)
		2024	0.0015"	This alloy series is very susceptible to galvanic corrosion. Copper in alloy leads to a yellow coating with poor weather resistance. Loses its shine and starts to show heavy grain pattern after etching. Natural yellow color of anodize coatings > 0.0005" affects color match.
3000	manganese (Mn)	3002	0.0018"	Susceptible to oxide streaking, tears, etc. from the rollout operation.
		3003	0.0018"	3004 achieves darker gray appearance at same thickness as 3003 series
		3004	0.0018"	
4000	silicon (Si)	4043		Used as welding rod material. Produces a heavy black smut that is hard to remove.
5000	magnesium (Mg)	5005	0.0028"	Susceptible to oxide streaking, tears, etc. from the rollout operation.
		5052	0.0028"	Hardcoat finish typically has excellent dielectric properties.
6000	magnesium (Mg)	6005	0.0033"	6000 may show grain pattern after processing.
	silicon (Si)	6061	0.0020"	6061 temper affects the amount of coating thickness achievable.
		6063	0.0033"	Slightly higher thickness possible on T65, T651 (0.0025") than on T6 (0.0020").
		6105	0.0033"	
		62620	.0018"	T5 temper prone to cloudiness after chemical brightening.
6463	0.0033"			
7000	zinc (Zn)	7075	0.0033"	Zinc will produce yellow coatings. 7075 susceptible to blistering of hardcoat finish. 7075 coating becomes increasingly brittle and more prone to chipping as thickness increases. Also, more susceptible to crazing at higher coating thickness. Loses its shine very quickly if etched. This alloy series is very susceptible to galvanic corrosion.