

**Commercial non-chromate alternatives for bulk Al and Al coatings.**

Substrate	Process	In test	Qualified	Not suitable
<b>Alternatives to chromate conversion coatings</b>				
Al, Mg, Ti, steel, anodize, phosphate, Zn, Cd	TriChrome Pretreatment (TCP)* – AnoChem TCP, Aluminescent, TCP-HF, Alodine 5900	Class 3		
Al, Mg, Ti, steel, Zn	Alodine 5200/5700*			
Al, Mg, Zn	Safeguard CC-3400 Lacquer, wax, seal, bake			
Al	Oxsilan AL-0500, Chemidize, BI-K Akclimate			
Al	Dorado Kote #7			
Al, Zn, steel	EMC			
Al, Mg, Ti, steel, Zn	AC-130, AC-131*			
Al	PreKote*			
Steel, Zn	Various, Bondrite, Zinclad, Hypro Blue, Chromiting (best performance for Zn)	Cr thickness issues, torque tension		Zn Phos – analog for chem film not available
<b>Anodizing alternatives for Al and Mg alloys</b>				
Al, Ti (in development)	Keronite (for Al alloys)	Australian stack up testing		
Mg	Tagnite (very good, but NDI issue)			
Mg	Anomag			
Al	Thin film sulfuric anodize, Henkel microarc (good barrier), additive anodizer		Fatigue testing	
Al	Boric-sulfuric anodize	PAA sealed – corrosion	Authorized	
Nalco NC	Requires 250C bake			
Mg	Rare earths			