

ISO/TR 16689:2012-05 (E)

Anodizing of aluminium and its alloys - Experimental research on possible alternative sealing quality test methods to replace the phosphoric acid/chromic acid immersion test - Evaluation of correlations

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Literature research	2
2.1	General	2
2.2	Acidified sulfite test (Kape test)	2
2.3	Acetic acid/sodium acetate solution test	2
2.4	Chromic/phosphoric acid solution test	3
2.5	Sulfuric acid solution test	4
3	Materials and experimental	4
3.1	Anodizing	4
3.2	Sealing	4
3.3	Measurements of sealing quality	5
4	Results	7
4.1	Masking of cut surfaces	7
4.2	Bare aluminium and dissolution in the dissolution tests	7
4.3	Hot sealing	7
4.4	Cold sealing (two step)	13
4.5	Nickel-based medium temperature sealing	17
4.6	Nickel-free medium temperature sealing	21
5	Discussion	24
6	Conclusion	26
Annex A (Informative) Qualanod working group report		27
Bibliography		30