# ANODIZING TYPE DECISION TREE

# Architectural anodizing

Anodizing to produce an architectural finish to be used in permanent, exterior and static situations where both appearance and long life are important.

This may be applied to other products that are used in other outdoor applications where both appearance and long life are important, eg automotive ones.

Coating thickness, sealing quality and anodizing quality are particuarly important.

### Industrial anodizing

Anodizing to produce a coating where wear resistance is important but protection of the finish or against corrosion of the aluminium substrate might also be required. Coating thickness, sealing quality, wear resistance and sometimes final dimensional tolerances are particularly important.

### Decorative anodizing

Anodizing to produce a decorative finish with a uniform or aesthetically pleasing appearance as the primary characteristic.

Sealing quality and light reflection properties are particularly important.

## Hard anodizing

Anodizing to produce a coating where high wear resistance or microhardness is its primary characteristic.

Coating thickness, wear resistance and sometimes final dimensional tolerances are particularly important.

Is the primary characteristic of the product		Anodizing type	Is the secondary characteristic of the product		Anodizing type	Is the tertiary characteristic of the product		Anodizing type
Appearance and the long term preservation of appearance outdoors?	Yes	Architectural						
High quality appearance of the product which will be used close-up?	Yes	Decorative				•		
Wear (abrasion) resistance or microhardness?	Yes	Industrial or hard	Wear (abrasion) resistance or microhardness?	Yes	Hard			
			Protection against corrosion of the aluminium substrate?	Yes	Industrial (sealed)			
			Lubricity by impregnation into the unsealed coating?	Yes	Hard			
			Electrical breakdown (insulation)?	Yes	Hard			
			Appearance?	Yes	Industrial (sealed)			
Protection against corrosion of the aluminium substrate?	Yes	Architectural or industrial	Is the product an aluminium alloy that is effectively resistant to pitting corrosion, such	Yes	Architectural			
			as those used in building applications?	No	Industrial			
Light reflection properties?	Yes	Decorative				_		
Light fastness?	Yes	Architectural or			Architectural			
Resistance to ultraviolet radiation and heat?		decorative	appearance outdoors?		Decorative			
			Appearance and the long term preservation of	Yes	Architectural			
Resistance to cracking by deformation?	V	Architectural, industrial or	appearance outdoors?	No			Yes	Decorative
(Material that is deformed after anodizing such as rolled products)	Yes	decorative	High quality appearance of the product which	Yes	industrial Decorative	will be used close-up?	No	Industrial
such as rolled products)		decorative	will be used close-up?	No	Industrial			
			'	Yes	Architectural			
Coating continuity		Architectural, industrial or	Appearance and the long term preservation of appearance outdoors?		Decorative or	High quality appearance of the product which	Yes	Decorative
(Anodized material that has been deformed				Nο	industrial			Industrial
such as that produced by coil anodizing or		decorative	High quality appearance of the product which	Yes	Decorative			
material anodized to less than 5 μm)			will be used close-up?	No	Industrial			
Thermal craze resistance	Yes	Architectural	Appearance and the long term preservation of	Yes	Architectural			
		or decorative	appearance outdoors?	No	Decorative			