



recommendations for the  
**Corrosion protection**



for aluminium in the field of architectural applications



the

**global**

**standard**

for

**architectural**

aluminium

**finishing**

recommendations for  
corrosion protection

**for aluminium in the field of architectural  
applications**

QUALICOAT's Specifications give requirements for material quality, the pretreatment and the coating process and define the performance of the organic coating.

The following recommendations for corrosion protection are focusing on the combination of environmental conditions and the QUALICOAT Specifications to achieve a long-term performance of the coated aluminium, also taking the work of architects and specifiers into account.

## Technical Information Sheet No. 4

May 2023 Edition

The following 'Corrosion Table' demonstrates possible combinations of material quality, different types of pretreatments and environmental description according to international standards, which are leading to our recommendations. The grade of recommendation is sectioned into R (recommended), HR (highly recommended), NR (not recommended), and A (alternative, although technically not necessary).

The recommendations in the following table are referring to the examples of typical environments stated in ISO 9223:2012 Table C.1 and ISO 18768-1:2022, also with references to costal areas and areas with strong effect of de-icing salt on the basis of a 1-layer-coating system. Other applications with strong effects of chlorides, e.g. swimming pools, can be classified accordingly.

The following treatments or conditions may improve the corrosion resistance:

- **Regular cleaning according QUALICOAT Technical Information Sheet No. 1 'Recommendations for care of coated aluminium'**

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- **Application of 2-layer-coating systems according QUALICOAT-Specifications (Primer + Finish) to improve the covering of edge radius**

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- **Watertight construction, sealing of machined surfaces (after coating) and/or good ventilation and draining of façade elements.**

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The following treatments or conditions will decrease the corrosion resistance and cannot be influenced by the pretreatment and powder coating process:

- **Damaged coating film, e.g. by scratches, tools or post-treatment**

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- **Contact/galvanic corrosion with other materials**

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- **Dirt load, e.g. at connections/inside corners**

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- **Sharp edges with edge radius < 0.5 mm and burrs**

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- **Stray electrical currents**

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- **No watertight construction, no sealing of machined surfaces (after coating) and bad ventilation and draining of façade elements.**

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## Corrosivity Categories

## Pretreatment

According to  
ISO 18768-1:2022 Table 1  
ISO 9223:2012 Table C.1

On different material  
qualities

Material Quality	6060 6063			QCT 3.0*	
	Chemical		Pre-Anodising	Chemical	Pre-Anodising
Pretreatment Type	1 g/m <sup>2</sup>	2 g/m <sup>2</sup>	2 g/m <sup>2</sup>	2 g/m <sup>2</sup>	2 g/m <sup>2</sup>
C1 + C2	R	A	A	R	A
C3	NR	R	R	R	R
C4	NR	R	HR	R	HR
C5	NR	R	HR	R	HR
CX	NR	NR	HR	NR	HR

\* Etching degree of 2 g/m<sup>2</sup> is mandatory for QCT 3.0

### Corrosion Table with recommendations:

R = recommended  
HR = highly recommended  
NR = not recommended  
A = Alternative (improved corrosion protection, technically not necessary)

Note: For cast accessories see Appendix A5 of QUALICOAT Specifications.





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