

Subject: Surface quality classification of untreated and anodised profiles

	Surface quality class 3	Surface quality class 4	Surface quality class 5	Surface quality class 6
Alloy	EN AW-6060 EN AW-6063	EN AW-6060 EN AW-6063	EN AW-6060 EN AW-6063 EN AW-6101 EN AW-6005 EN AW-6082 EN AW-1070	EN AW-6060 EN AW-6063 EN AW-6101 EN AW-6005 EN AW-6082 EN AW-1070
Manufacturing	During extrusion, have the profile's non-visible surface face the run-out table. The visible surfaces of the profiles must not touch one another during extrusion. Handle with care.	The visible surfaces of the profiles may touch to each other during extrusion.	Noticeable streaks and stripes resulting from extrusion are permitted.	No surface quality requirements.
Surface requirements	No obtrusive faults* are permitted when viewing the profile's visible surface from the inspection distance.	No obtrusive faults* are permitted when viewing the profile's visible surface from the inspection distance.	No significant faults are permitted when viewing the profile's visible surface from the inspection distance. Surface roughness, noticeable streaks, etc. are permitted.	Only the dimensions and mechanical properties are inspected. Surface quality is not inspected.
Common applications	Decorative moulding, furniture, lighting, household goods, audio equipment, etc. Well-suited for anodisation.	Building systems, windows, doors, ladders, electrical components etc. Appropriate for profiles that are anodised or painted.	Building systems, stock profiles, mechanical components, fence profiles, etc.	Stock profiles used for construction, machined profiles, non-visible profiles, etc.
Quality assurance	Visual inspection	Visual inspection	Visual inspection	Surface quality is not inspected
Inspection distance	1 m	2 m	3 m	-
Inspection time	5 s	5 s	3 s	-
Packaging	Apply protection around layers and/or profiles, paying attention to visible surfaces, or follow separate packaging instructions.	Protect visible surfaces or follow separate packaging instructions.	Only protect visible surfaces or follow separate packaging instructions.	No protection.

*Obtrusive fault = faults clearly visible from the inspection distance under normal lighting conditions with the surface perpendicular to the viewer.

The quality department performs test anodisation on surface class 3 profiles to ensure the specified surface quality before surface treatment and packaging. The test anodisation results are kept for three months.

As a rule, non-visible surfaces are treated as class 5 surfaces. No holes, air bubbles or large scratches are permitted on the surface.

The surface quality class only applies to the surfaces indicated in the picture. If the visible surface has not been marked separately, the entire profile is treated according to the surface class marked on the picture.

Author Quality department	Date 4/2017	Updated by Quality department	Date 9/2017	Approved by PVe	Version 2.0
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