



Powder Coating Surface Finish

APPEARANCE GUIDE

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1. Scope

This standard provides guidance on the in situ inspection of the surface finish of powder coated extrusions for architectural applications. It gives an introduction and guidance on the assessment of significant surfaces with respect to surface defects in the coating system.

Furthermore it is CV Powder Coaters (CVPC) agreement for acceptance as per AS3715:2002 Clause 2.5.1 where stated as follows:

NOTE: It is strongly recommended that the supplier and customer agree appropriate standards of acceptance for the presence, size or frequency of any coating defects.

2. Referenced Documents

The following documents referred to in this standard:

AS1580.481.0 – 2003 Paints and related materials – Methods of test Part 481.0: Coatings – Guide to assessing paint systems exposed to weathering conditions AS3715 – 2002 Metal Finishing – Thermoset powder coatings for architectural applications of aluminium and aluminium alloys

Revision of 1st ed-Dec 1997 The Aluminium Development Council of Australia – Aluminium Standards and Data – Wrought Products

3. Definitions

As per AS3715 – 2002:

3.1 Significant Surface

That part of the surface which is required to be covered by the coating, and which is essential to the appearance and serviceability of the item. The significant surface does not include edges, deep recesses and secondary surfaces.

As per the Aluminium Development Council of Australia – Aluminium Standard and Data – Wrought Products.

3.2 Architectural Surface

A controlled finish of substantially uniform appearance; buffing will not produce a die line-free finish unless a preliminary grinding or sanding operation is employed.

Note: This finish is normally satisfactory for exposed surfaces of any architectural application and is applied to those surfaces of each shape nominated by the purchaser or proprietary systems supplier.

3.3 Lux

A measurement of luminous intensity from a light source equivalent to 500 lux.

Illuminance	Example
50 lux	Family Living Room

80 Lux	Hallway / Toilet
100 lux	Very Dark Overcast day
320 – 500 lux	Office Lighting
400 lux	Sunrise or Sunset on clear day
1000 lux	Overcast day
1000 – 25000 lux	Full daylight
32000 – 130000 lux	Direct sunlight

3.4 Significant Defects

A significant defect is a defect which is visible from 1.0m and has an outside diameter from 1.5mm.

3.5 Minor Defects

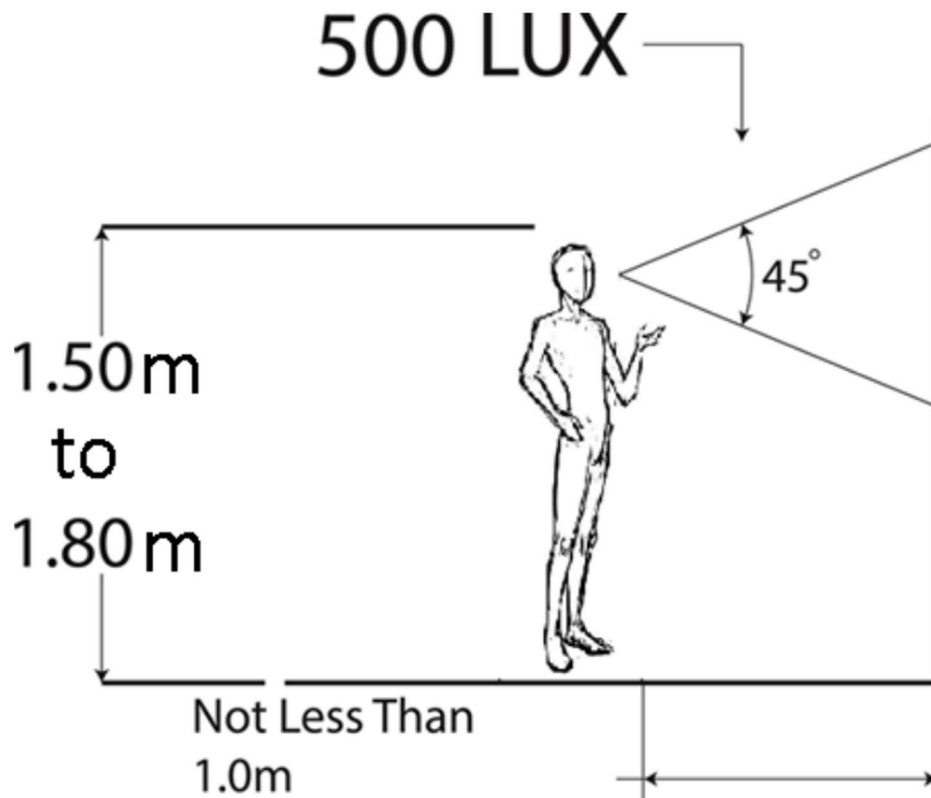
A minor defect may be visible from 2.0m and has an outside diameter of up to, and including, 1.5mm

3.6 Possible Defects

Possible defects that may be seen in situ include: inclusions (foreign particles in the powder), contamination (different colour powder in the surface finish), excessive roughness, craters, dull spots, scratches or any other unacceptable flaws.

4. Viewing Conditions

For all viewing situations, a minimum of 1.0 metre shall apply, provided that further distance be allowed to commensurate with the use of the product and its in-situ viewing distances



5. Surface Clarification

All extruded aluminium profiles shall be classified according to the importance of the visibly seen surfaces.

Surface	Definition
Primary Surface (Surface A)	Deemed as the significant surface as defined in AS3715-2002.
Secondary Surface (Surface B)	Defined as surfaces normally only seen when a window or door is open (e.g. inside the glazing pocket of the window frame when a sash window is open).
Non-Visual Surface (Surface C)	Defined as surfaces unseen when the window or door is installed.

6. Appearance Standard

When viewed as per conditions listed in

Surface	Visual Standard
Primary Surface (Surface A)	From 1.0 metre, the coating on the primary internal & external surfaces shall be of uniform appearance, colour and texture and be free from significant defects. However it may contain 1 minor defect (as defined in section 3) for every 1 square metre.
Secondary Surface (Surface B)	Secondary surfaces are checked for acceptable powder coat coverage and are free from significant defects but may contain several minor defects. The coating requirement for secondary surfaces is for a light coverage only where possible. It is not possible to specify a required powder thickness in these areas and no guarantee of powder coverage shall be provided.
Non-Visual Surface (Surface C)	These are non-visual surfaces for which there is no standard or requirements.

7. Care & Maintenance

The effects of UV-light, pollution, dirt, grime and salt deposits can all accumulate on your powder coated surface over time. To extend the effective life of powder coating and protect any warranty requirements that may exist, a very simple regular maintenance program should be implemented for the removal of any residuals. As a general rule, cleaning should take place every six months. However, in areas where pollutants are more prevalent, such as coastal or industrial regions, a cleaning program should be carried out on a more frequent basis (i.e. every three months).

To clean your powder coated surface:

1. Carefully remove any loose deposits with a wet sponge.
2. Use a soft brush (non-abrasive) or cloth, and a mild household detergent solution to remove dust, salt and other deposits.

3. Rinse off with fresh water. Detergents which recommend the use of gloves when handling should be avoided as this is a good indication that the detergent is harsh and therefore, unsuitable for cleaning your powder coating.