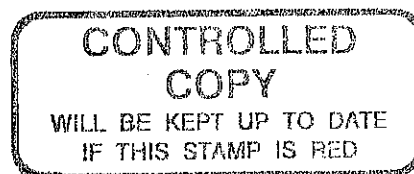


Australian Standard™

**Metal finishing—Thermoset powder
coatings**



SECTION 2 PERFORMANCE REQUIREMENTS

2.1 GENERAL

Powder-coated metal products shall comply with the appropriate requirements of this Section. These requirements may not be achievable unless the substrate metal surface receives an appropriate pretreatment.

Representative coated and cured samples shall be selected for testing in accordance with Appendix H, unless otherwise specified in this Section.

2.2 PRETREATMENT

To achieve the optimum performance of the coatings, substrate metal surfaces should be pretreated in accordance with the recommendations of the powder and pretreatment supplier. Examples of appropriate pretreatment for various substrate metal surfaces are given in Table 2.1.

NOTE: Advice on procedures for pretreatment and conversion coating application is given in Appendix I.

2.3 APPEARANCE

2.3.1 General

There shall be no irregularities likely to affect the performance of the finished item.

The coating shall cover all significant surfaces as specified by the purchaser, be of uniform appearance, colour and texture, and be free of visible defects.

For all viewing situations a minimum of 1 metre unless otherwise agreed shall apply provided that another distance be allowed commensurate with the use of the product and its in situ viewing distances.

NOTE: It is strongly recommended that the manufacturer or supplier and customer agree appropriate standards of acceptance for the presence, size or frequency of any coating defects (such as deficiencies in colour, uniformity or texture, or the presence of defects). Appropriate standards may take the form of acceptable type samples or methods of test.

2.3.2 Defects

Defects in the substrate metal surface, such as scratches, pits, non-conducting inclusions, and roll and die marks, may adversely affect the appearance and performance of the applied coating. Such defects that persist in the finish despite the observation of good metal finishing practices shall not be cause for rejection.

NOTE: Applied finishes generally perform better in service when the substrate over which they are applied is smooth and free from torn metal, inclusions, pores and other defects. It is recommended that the specifications covering the unfinished product provide limits for those defects. A metal finisher often can remove defects through special treatment such as grinding, polishing, abrasive blasting, chemical treatments and electropolishing (see AS 1627.1, AS 1627.2, AS 1627.4, AS 1627.5 and AS 1627.6). However, these are not normal in the treatment steps preceding the application of the finish. When they are desired, they are the subject of special agreement between the purchaser and the supplier.

2.4 SPECULAR GLOSS

When determined in accordance with AS/NZS 1580.602.2, using a 60° exposure head, the measurable specular gloss shall not vary by more than ± 7 gloss units from the specified value.