



OXYHIN SDN. BHD. (393471-X)

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GUIDELINES FOR DURABLE (APR) & SUPER DURABLE ARCHITECTURAL POWDER COATING (SAPR) APPLICATION

1. MATERIALS

Materials to which Oxyplast APR/SAPR powder should be applied on aluminium of high quality Aluminium alloy 6063, milled finished.

1.1 Materials handling before and after curing :

1.1.1 Materials should be handled carefully. Contamination such as soil, dust, finger marks etc. should be avoided prior to application of APR/SAPR.

1.1.2 APR/SAPR powder coating must be applied in booth and cured in oven free of dust and contamination. The item should be baked immediately after application.

1.1.3 After coating, materials should be cooled to less than 40°C before handling and care should be taken not to damage the finish coating during stacking, packing, storing and transportation.

1.2 Material storage

1.2.1 Aluminium

Clean and dry storing area, free from any chemical contamination should be provided for aluminium profiles.

1.2.2 To prevent excessive corrosion, aluminium profiles should be kept under plastic wrap (usually provided by aluminium supplier).

2. METAL PRE-TREATMENT

The materials specified in item 1 must undergo proper treatment before application of Oxyplast APR/SAPR Coating according to DIN 50939 or an equivalent treatment with which the chemical suppliers guarantee salt spray resistance exceeding 2000 hours and 3000 hours respectively.

3. PRE-TREATMENT TEST.

Pre-treatment chemicals must be tested according to the written procedure from chemical supplier. The frequency of the test should be as per advice of the chemical supplier.

4. LABORATORY

The laboratory must at least be equipped with important apparatus mentioned below:

- A. One instrument to gauge the thickness
- B. One specular gloss meter
- C. One analytical balance
- D. Cutting tools and instruments to realise adhesion test
- E. Impact tester
- F. Temperature and time recorder (Grant Meter for example)



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G. One conical mandrel

5. QUALITY CONTROL OF FINISHED PRODUCT

5.1 Full range of test, as stated in Oxyplast APR/SAPR brochure, must be performed on test panels prepared in such a way that production batch is simulated. The test panels must be made of the same alloy that goes with the same treatment of the production batch.

5.2 All test results are recorded and maintained as well as the test panels are retained for at least 20 years.

5.3 Another two sets of coated samples per shift/day are submitted to Oxyhin Sdn Bhd; i.e. four panels of pre-treatment aluminium and 2 panels of galvanised steel. (3"x6" with coating thickness 60 - 80 um)

6 SAFETY

6.1 Pre-treatment chemicals

Safety precautions should be observed in handling the pre-treatment of chemicals. It is sufficient to seek the advice of the chemical supplier for safety handling of the chemicals.

6.2 APR powder coating

6.2.1 As the powder is a distribution range of fines and super fines, the use of gas mask is an imperative safety measure during application and handling of powder. Operators who are known to suffer with respiratory complaints should not be employed as powder applicator.

6.2.2 Proper ventilation, extraction system and storage facilities are required as dust can cause fire and explosion if not properly handled. Smoking and the use of naked flames should be prohibited.

6.2.3 Disposal of waste should be carried out in accordance with local regulations.