



## **GUARANTEE FOR THE COATING OF ALUMINIUM ALLOYS\* AND GALVANIZED STEEL\* FOR MARINE AND INDUSTRIAL ENVIRONMENTS**

We, Valspar Powder Coatings Ltd of 95 Aston Church Road, BIRMINGHAM, B7 5RQ UK manufacturers and suppliers of SYNTHATEC PLUS Polyester Powder (hereinafter referred to as SYNTHATEC PLUS or referred to as the product), for heat treated application to aluminium pressings, sheeting and extrusions and galvanized steel\* hereby guarantee that our SYNTHATEC PLUS coating will, subject to the provisions of this guarantee, have the following properties for a period of 26 years from the date of application of the coating or for a period of 25 years from the date of installation of the coated article.

### **1. ADHESION**

Adhesion of SYNTHATEC PLUS as delivered to the Applicator when measured by reference to BS3900 Part E6:1992 will have cross-cut coefficient zero on a panel prepared and coated in strict accordance with the specified process and coated to a maximum of 100 micrometres.

### **2. DEGREE OF GLOSS**

At the time of delivery of the product to the Applicator the degree of gloss will be within five units of the standard for the product. The measurement will be taken using the procedure described in BS3900 Part D5:1980 using an incidence angle of 60° and will be measured after the film has been cured at the recommended stoving schedule. Any gloss reduction occurs evenly over the surface without adversely affecting the uniform appearance.

### **3. LIGHT RESISTANCE**

Light resistance measured by reference to BS3900 Part F5:1972 and evaluated by reference to BS3900 Part D1:1978 shall be to wool scale pattern No.5 or greater complying with BS1006. A change may occur in the shade of the coating on the surface of the product but this will not affect the uniform appearance of the finish.

### **4. WEATHER RESISTANCE**

Weather resistance is measured by reference to BS3900 to Part F3:1971, and shall correspond with "Grey Scale" 2 or greater.

\* See Appendix Part 1

Our Guarantee is only applicable where the product has been applied to the aluminium alloys and galvanized steel specified in the distinguishing appellation of this document and providing that the coating is applied by a Valspar Approved Applicator.

## **THE PROCESS AND PROCEDURE**

### **(a) PRETREATMENT**

The aluminium alloys and galvanized steel to be coated must be fully pretreated using a Valspar approved method prior to the application of the product. The approved method is based on:-

- i) degreasing
- ii) rinsing
- iii) etching (optional for galvanized steel)
- iv) rinsing
- v) de-smutting
- vi) rinsing
- vii) chromating (aluminium)
- viii) chromating or zinc phosphating (galvanized steel)
- ix) rinsing
- x) demineralised water rinse (the conductivity reading of the initial drain-off water of the final rinse must not exceed 80 microSiemens)
- xi) drying (maximum 100° Celsius metal temperature)

(Degassing should be carried out for galvanized steel in accordance with Appendix Part 4)

- (b) The cured continuous film must be a minimum of 60 micrometres in thickness. To maintain the inherent design capabilities of the product it may be necessary to apply a thicker film in some instances.
- (c) All extrusion and other components to be coated as individual items (i.e. no cut edges) where practical. The use of a 2 pack adhesive and/or small joint sealer, as recommended by the system supplier when applied to bare aluminium mitre joints together with crimping is the normal and acceptable practice when marine or swimming pool conditions apply.
- (d) All joints to be sealed with an approved mastic.
- (e) The Applicator shall prepare four test panels of an approved grade, size and thickness for testing and reference purposes. These panels shall be prepared and coated from 60 micrometres up to a maximum film thickness of 100 micrometres in accordance with the process and at the same time as the production they represent. A minimum of one set per production line must be prepared every four hours. Two panels shall be submitted to Valspar for testing, one panel shall be fully tested by the Applicator and one shall be retained by the Applicator for reference.
- (f) The Applicator, every four hours, on one of the panels prepared in (e) must carry out the following tests to ensure the specified test values have been obtained and the results recorded.

1. Adhesion to BS3900 Part E6:1992 cross hatch test.  
Value required - coefficient zero 100% adhesion.
  2. Mandrel bend test to BS3900 Part E11:1985. (Aluminium only)  
Value required - 6mm no cracking of film.
  3. Falling weight impact of an approved type. (Aluminium only)  
Value required - 20"/lbs or 23cm/kgs, no detachment of film.
  4. Drilling, milling and saw test  
Value required - no loss of adhesion.
- (g) The Applicator shall ensure that the curing oven(s) is (are) checked once daily in order to ensure that any shift in the curing temperature is recognised. If any shift occurs the work involved must be fully evaluated and the necessary action taken by the Applicator. The details of curing parameters must be retained by the Applicator for inspection by Valspar.
- (h) The Applicator must keep an accurate pretreatment log and use the pretreatment chemicals in strict compliance with the manufacturer's instructions and knowledge. Also details must be kept indicating colour, batch number of powder used and date of despatch of each individual job processed. This information must be available for inspection by Valspar.
- (i) Where damage to the coating occurs, it must be repaired immediately. Should damage occur during fabrication or on site, it is necessary to apply a repair procedure (See Repair Procedure for SYNTHATEC) immediately. It is suggested that this is carried out by the fabricator/installer.
- (j) A production control report must be produced with every set of 4 test panels (see above). Copies of this report will be distributed as follows:-
1. Customer of the Applicator if requested.
  2. Valspar
  3. Retained by the Applicator

#### **PROVISIONS OF THE GUARANTEE**

Valspar shall incur no liability hereunder whatsoever in the event that any one or more of the following circumstances shall apply:-

- i) the process and approved procedure as detailed has not been adhered to and the necessary documentation and test panels have not been received by Valspar.
- ii) on the date of application the gloss level is more than 7 units from the standard for the product when measured at an incidence angle of 60° as specified in BS3900 Part D5:1980 when the film is cured at the recommended stoving schedule.
- iii) where two coats of the product have been applied.
- iv) the product is stored at temperatures exceeding 25° Celsius.



# synthatec

- v) the product is not stored in dry conditions.
- vi) the product coating is not cleaned and maintained in accordance with Appendix Part 2.
- vii) touch-up systems have been used as detailed in Appendix Part 3.
- viii) the product to which our coating is applied is exposed to continuous heat in excess of 70° Celsius or is in the direct influence zones of the sea (applicable to swimming pool guarantee only), acid, industrial or other aggressive emission sources which are known or believed to be damaging or corrosive to thermosetting powder coatings.
- ix) notification in writing is not received within 60 days of any defect becoming apparent to the building owner.
- x) the product coating is subjected to mechanical damage.
- xi) where bare uncoated substrate is left exposed to the elements.
- xii) delamination of the galvanizing layer for whatever reason. (This includes the cropped edges of hot rolled section and sheet to BS EN 10142, BS EN 10143, BS EN 10147 unless protected by a water tight seal or gasket or sealed under an approved mastic).
- xiii) the product coated is situated within a swimming pool plant room.
- xiv) dissimilar metals have been used thereby setting up electrolytic cells. If this is unavoidable suitable sealants and mastics must be used to isolate the various components from each other.
- xv) where water traps occur in the design of the components to be coated.

Save where we are shown to have failed to exercise reasonable care in the manufacture and supply of the product we shall not be liable in any circumstances in respect of death or personal injury and under no circumstances whatsoever shall we be liable for consequential and indirect loss of loss of profits.

Our liability whether in respect of one claim of the aggregate of various claims other than claims for death or personal injury due to negligence on our part shall not extend to the first £1000 of any loss or damage suffered by reason of any failure. The maximum liability of our company in respect of any one claim or series of claims for any such failure in respect of any one occurrence or series of occurrences consequent upon or attributable to one source or original cause during any one calendar year shall not exceed £250,000.

**This guarantee shall only apply where the product to which the coating is applied is installed on premises within the United Kingdom, Channel Islands, Isle of Man, Eire or any of the following European countries, namely, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Holland, Iceland, Italy, Luxembourg, Norway, Portugal, Spain, Sweden, Switzerland & Turkey.**

This guarantee shall be construed and interpreted in accordance with English Law and shall be subject to the jurisdiction of the English courts only. Where by virtue of any United Kingdom Act of Parliament,



statutory rights are conferred for the benefit of the customer, such rights shall not be affected in any way by this guarantee.

Our Terms and Conditions of Sale shall apply to all SYNTHATEC PLUS supplied by us save that the provisions of this guarantee shall override the portions of Condition 10 (liability) with which they are in conflict such that the provisions of the guarantee shall prevail so as to give full effect to the terms of this guarantee. This guarantee expressly excludes the adhesion of the coating applied by the Applicator.

Sample



## **APPENDIX**

### **PART 1**

Aluminium alloys to be coated shall be to BS1470, BS1471 and BS1474 (or their updated BS EN and other European standards).

Galvanized steel to be coated shall be hot-dip galvanized hot rolled steel sections to BS729 or hot-dip galvanized preformed steel sheet to BS EN 10142, BS EN 10143 or BS EN 10147.

### **PART 2**

Components to which the product is applied must be cleaned at regular intervals of not more than 3 months commencing with the date of installation at the premises of the building owner using a mild detergent and warm water on all surfaces with a soft cloth or sponge but nothing harsher than a natural bristle brush.

Fully documented and corroborative cleaning records must be kept for the period of the guarantee, by the client of the building to which the guarantee relates.

### **PART 3**

If touch-up materials are used the areas coated in these materials are expressly excluded from the guarantee.

### **PART 4**

De-gassing of zinc based substrates shall be carried out as and when required at the discretion of the Applicator in order to achieve the optimum visual and environmental performance. De-gassing will invariably reduce pinholing of the coating on zinc based substrates but in some instances even when processed perfectly pinholing will be evident in the cured film.