



**ZHEJIANG TIANZHIWANG  
ALUMINUM INDUSTRY CO.,LTD.**

**(About:PVDF)**

<b>EDIT</b>	<b>TECHNICAL DEPARTMENT</b>
<b>EDITION NO.</b>	<b>FIRST</b>
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# WARRANTY AGREEMENT

## For PVDF COIL COATINGS

**ZHEJIANG TIANZHIWANG ALUMINUM INDUSTRY CO.,LTD.** hereafter called COILCOAT, COIL COAT can assist in inspection of possible claims.

### 1. PRODUCTS

This warranty pertains to the following paint qualities:

PVDF

### 2. WARRANTY

The warranty applies as in the table below; the warranty is valid from the date of coating at COILCOAT for 15 (six) years.

The areas stipulated in the table also guarantee that the paint film will not flake or disintegrate in any other way, such as cracking, blistering, or loose adhesion within the warranty life time, if correct use, application – including coating thickness, curing, and proper coating processes have been, and can show to have been, carried out.

<b>Paint System</b>	<b>Test</b>	<b>Colour</b>	<b>Area A</b>	<b>Area B</b>	<b>Area C</b>
<b>PVDF</b>	Color change, $\Delta E$ ASTM D2244-89	<b>Light</b>	5	6	7
		<b>Mid tone</b>	5	6	7
		<b>Dark</b>	5	6	8
	Chalking grade ASTM D4214-89	<b>Light</b>	8	7	6
		<b>Mid tone</b>	8	7	6
		<b>Dark</b>	8	7	5

### 3. AREA FOR WARRANTY

The warranty is valid only for normal environmental climate.

Warranty for areas that are heavy polluted industrial areas, close to coast lines (less than 500m.), or have special circumstances not specifically referred to herein, must be referred to on an individual basis.

#### **4. VALIDITY OF WARRANTY**

This warranty is not valid.....

- (a) if the final product with painted surface has experienced abuse or misuse in any way, or in accordance with specific items below in this document.
- (b) For the reverse side of the sheet.
- (c) For surfaces which have been touched up.
- (d) For mechanical damage on the sheet, or for incorrect use or handling of the sheet(s).
- (e) If the recommended top coat film thickness has not been applied.
- (f) If the recommended primer thickness has not been applied, or if wrong primer quality has been used.
- (g) If pre-treatment has been incorrectly used.
- (h) If the sheets or coils have been incorrectly stored.
- (i) If there are defects in the substrate such as, but not limited to, : bare spots, or mechanical damage to the surface.
- (j) Failure that occurs due to substrate material, substrate selection, or substrate failure.
- (k) If the sheet is in contact with copper, cupric salts or liquid flows from copper piping.
- (l) If the air contains strong aggressive chemical substances or there are other abnormal conditions.
- (m) If damage or loss has been incurred due to late or delayed reporting of a claim, the extent of claim under the warranty is restricted or voided due to the extent of damage caused by delay in reporting.

#### **5. OTHER TERMS AND CONDITIONS**

- (a) Water must be free to run off all surfaces.
- (b) The gradient of the roof or other surfaces must be at least 1:10 (5.7°).
- (c) The defects or disintegrates that apply to this warranty shall affect a considerable part of the total coated area (>2%).
- (d) Dirt and other deposits, as well as surfaces protected from the rain, must be washed down regularly, in a professional manner.
- (e) Appropriate fastenings and sealants must be used.
- (f) The paint must be applied on the coil sheet before expiry date of the coating material.
- (a) Colour change shall be measured on the exposed painted surface that has been cleaned of surface soils and chalk, and the corresponding values measured on the original unexposed painted surface.
- (b) Claims under the warranty must be made within 30 days or less of the appearance of said claimed defect.

**6. SAFP RESPONSIBILITY**

For this warranty to be valid, clients must maintain records with full trace-ability, such as, but not limited to:

- (a) The coil number
- (b) Date of painting
- (c) Invoice copy of the actual paint
- (d) Line painted samples marked with the paint batch number
- (e) Date of primer application and batch number
- (f) Supply date to project and installation date on project.
- (g) Claims under the warranty must be made within 30 days or less of the appearance of said claimed defect.

**7. ATTACHMENTS**

Appendix 1, 2 and 3 are an integral part of this warranty.

**8. CLAIMS UNDER WARRANTY**

Should a justifiable claim be presented under the terms of this warranty, the compensation should be negotiated in every specific case.

Compensation can be represented by replacement of paint; paint and manufacturing costs, paint, manufacturing and substrate costs, as each case may present.

## **APPENDIX 1**

Topcoats valid for warranty under point 2 in the warranty agreement:

PVDF top coat, minimum 16µm dry film thickness.

Primer valid for warranty under point 2 in the warranty agreement

PVDF primer coat, minimum 10µm dry film thickness.

## **APPENDIX 2**

Method of measuring chalking on pre-painted sheets exposed at buildings.

When measuring grade of chalking it is necessary to have a line painted sample from the same batch, (as mentioned under point 6(d) in this agreement).

If a customer has a claim on grade of chalking the following should be carried out:

- (1) Inspect the surface in question. Bring the line painted sample to make initial judgement of the claim.
- (2) If a visual control gives a negative result for chalking, act as described in **ASTM D4214-89**.

When inspecting a claim for chalking there is no other way other than to inspect the actual building.

### **APPENDIX 3**

Method of measuring colour change on pre-painted sheets exposed at buildings.

When measuring grade of colour change it is necessary to have a line painted sample from the same paint batch (as mentioned under point 6(d) in the warranty agreement).

If a customer has a claim on grade of colour change the following should be carried out:

- (1) Inspect the object in question. Bring along the line painted sample to compare and determine if a basis of justification exists.
- (2) If a visual control gives a negative result for colour change, cut out a small piece from the building/area in question.
- (3) In laboratory environment measure the change against the line painted sample (Note: if a portable computer is available, this can be used to initially determine the basis for investigation, but it will still require a sample from the building to be taken if there is confirmation of change.). For scale on colour change see point 2 in this warranty agreement ( $\Delta E$  units Max/year).
- (4) Measurements for colour change must be made on a cleaned surface.

When inspecting a claim for colour change there is no other way other than gaining access to the building in question.

### **APPENDIX 4**

<b>Area</b>	<b>Latitude</b>
Area A	North of North latitude 45° & south of South latitude 45°
Area B	North of North latitude 30° & south of South latitude 30°
Area C	Between North latitude 30° and South latitude 30°