



## Replikote PVDF Print – Performance Specification

### 1.0 Scope

This data sheet applies to hot dipped metallic-coated sheet steel and aluminum, precoated with **Metal Koting Replikote™** PVDF print pattern colours for exterior exposure in building product applications. **Metal Koting Replikote™** PVDF print systems have been designed for horizontal (15 - 85° from horizontal) and vertical (less than 5° from vertical) surfaces and for moderate atmospheric exposure. They are not recommended for aggressive exposure.

### 2.0 Base Metal

The base metal prior to painting will be continuous hot dip galvanized steel (Reference ASTM-A653/A653M), Galvalume™ (Reference ASTM A792/A792M), or aluminum (produced in accordance with Aluminum Association specifications).

### 3.0 Paint Properties

#### 3.1 Paint Thickness

- 3.1.1 The exposed side shall have a nominal dry film thickness of 1.1 mils (Reference ASTM D5796). Higher films can be applied if required to match specific colours.
- 3.1.2 The unexposed (reverse) side will have a nominal dry film thickness of 0.20 mils, or as agreed with the customer.

#### 3.2 Film Cure

The film as supplied shall withstand one hundred (100) MEK double rubs in accordance with ASTM D5402.

#### 3.3 Formability or Fabrication Resistance

When testing a representative sample at  $70^{\circ}\text{F} \pm 5^{\circ}\text{F}$  ( $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$ ) using #600 Scotch Cellophane tape or equivalent, the paint system will show no loss of adhesion when subjected to a 3T 180° bend (Reference ASTM D4145). This requirement only applies to hot dipped galvanize or Galvalume™ substrates up to 0.027" thickness and those grades and thicknesses of aluminum capable of forming a 3T bend without cracking.

#### 3.4 Gloss

The gloss measured with a 60° Glossmeter in accordance with ASTM D523, shall be maximum 10 gloss units for standard specification coatings, or as agreed between the customer and Metal Koting. This requirement does not apply to textured systems, as it is not possible to get a precise gloss measurement on these surfaces.

#### 3.5 Exterior Exposure (Weathering)

The system will successfully meet the following weathering standards in Canada and the continental U.S.A., providing the product has not been exposed to standing water or aggressive environments (including salt water, animal waste, and any chemicals not normally encountered in the atmosphere), and providing there is no evidence of compromised integrity due to improper storage, fabrication, installation, or lack of maintenance. In rare case, exotic colours may not meet the standards herein and these will be identified in the order enquiry process.



### 3.6.1 **Film Integrity**

During the first forty (40) years of exterior exposure in normal roll-formed applications, the film shall have shown no evidence of cracking, checking, peeling, crazing, spotting or loss of adhesion during ordinary outdoor visual observation. Minute fracturing, which may occur in proper fabrication of the parts, and failure due to substrate corrosion are not covered by this specification.

For metallic systems, this specification shall be limited to twenty (20) years.

### 3.6.2 **Chalking**

Chalking shall not exceed #8 during the first thirty (30) years of exposure. (Reference ASTM-D4214).

For metallic systems, this specification shall be limited to twenty (20) years.

### 3.6.3 **Colour Change**

It is not possible to instrumentally measure the colour on a printed surface due to the natural variations in the pattern. The print appearance will remain intact and distinguishable during the first twenty (20) years of exposure. Colour change shall be uniform. Panels or portions of a panel receiving significantly unequal sun exposure due to installation conditions shall be exempt from this requirement in those areas of unequal exposure.

## 4.0 **Colour Match**

It is not commercially possible for each lot of prefinished steel to be an exact colour match. As visual tolerances necessary with printed product allow for colour subjectivity, every effort must be made to segregate the product by lots for any individual end customer.

Metallic products will exhibit color shift, shade variations, and patterning due to the inherent nature of the product and these conditions will not be considered a cause for claim or rejection.

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