

# Wrinkle Textured SMP

## Quality and Performance Specification

Wrinkle SMP is a highly durable, textured, low-gloss prepainted steel that brings differentiation and originality to residential and commercial buildings.

### 1.0 Scope

This specification shall apply to hot dip metallic coated sheet steel prefinished with colours of proven durability suitable for exterior exposure as delivered from the coil coater.

Wrinkle SMP is a textured matte pre-coat product designed for roofing (non-vertical) and sidewall (vertical) applications, in the construction market. Typical applications include roofing, stamped or roll-formed metal shingles and siding architectural panels.

### 2.0 Base Metal

The base metal furnished prior to painting shall conform to one of the following specifications:

- (a) ASTM A653/A653M Specification for Sheet Steel, Zinc-Coated (Galvanized) by the Hot-Dip Process
- (b) ASTM A792/A792M Specification for Sheet Steel, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process (Galvalume®).

### 3.0 Paint Qualification Tests

#### 3.1 Film Thickness

The exposed surface shall have a minimum dry film thickness of 23 microns (0.9 mil).

The unexposed or reverse side shall have a dry film thickness which will vary in accordance with customer's requirements.

Test Method: ASTM D5796

#### 3.2 Formability/Adhesion Test

Using a representative sample at 25°C +/-2°C (77°F) and #610 scotch cellophane tape, the paint system will show zero loss of adhesion when subjected to a 3T 180° bend test.

Test Method: ASTM D4145

This requirement is not applicable for material ordered to ASTM A653M/A792M Grade 550 or ASTM A653/A792 Grade 80.

#### 3.3 Gloss

Specular gloss shall be in the range of 1 to 5 gloss units when measured with a 60° glossmeter. Due to the matt finish of Wrinkle SMP, only standard gloss may be ordered.

Test Method: ASTM D523

#### 3.4 Accelerated Corrosion Tests

##### 3.4.1 Prohesion (Modified Cyclic Salt Spray)

After 500 hours, typical average cut-edge corrosion of production samples shall not exceed 3 mm.

Test Method: ASTM G85, Method A5.

##### 3.4.2 Salt Spray Resistance

After 1000 hours the surface shall show only a few #8 blisters, and less than 3 mm creep from the scribe line.

Test Method: ASTM B117.

#### 3.5 Condensing Humidity

After 1000 hours of exposure to 100% relative humidity at a temperature of 38°C (100°F), the surface may show some scattered blisters no larger than No. 8 per ASTM D714.

Test Method: ASTM D4585

### 4.0 Exterior Exposure (weathering)

Each proven colour of Wrinkle SMP will meet the following weathering standards. Standards are applicable in the absence of aggressive fumes and/or other forms of chemicals not normally encountered in the atmosphere. Weathering standards are limited to installations located in Canada and the continental United States, and exclude all installations within 1,500ft or less from a saltwater environment.

#### 4.1 Film Integrity

During the first 40 years for installed roofs and side walls, the Wrinkle SMP paint film shall have zero evidence of cracking, flaking or checking to an extent that is apparent upon routine outdoor visual observation.

## 4.2 Chalking

Within the first 30 years after application, the degree of chalking shall not exceed rating #8 for vertical installations, and rating #6 for non-vertical when measured in accordance with ASTM D4214, Method A.

## 4.3 Colour Change

Within the first 30 years after application, the change in colour shall not be greater than 5 colour units for vertical installations and 8 colour units for non-vertical. Colour differences shall be calculated as per ASTM D2244, and only from a clean surface after removing surface deposits and chalk in accordance with ASTM D3964.

Colour shall be measured using an acceptable colour spectrophotometer designed to produce reflectance readings in the Tristimulus Filter System on X, Y and Z based on the CIE values of illuminant C and measured in Hunter L, a and b units.

## 5.0 Texture and Colour Match

Due to the paint texture technology, this product is directional and the application of directional chevrons on the reverse side is recommended. As a result of the coil coating process, it is not possible for separate lots of prefinished steel to have an identical texture match. Match problems can be minimized by following the below procedures:

- Ensure each building is clad with material from the same production lot.
- Orders for large projects which could involve more than one production lot should be reviewed with ArcelorMittal.
- Install Wrinkle panels in the same rolling direction on the building. All paint that is textured is considered to have some directionality due to the continuous application process. For certainty on the rolling direction, stencils with directional arrows can be applied upon request.

**Wrinkle SMP is available in several standard colours, please refer to the colour card at link below.**

[dofasco.arcelormittal.com/media/fhebwgoc/baycoat-wrinkle-colour-card.pdf](https://dofasco.arcelormittal.com/media/fhebwgoc/baycoat-wrinkle-colour-card.pdf)

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