

Granite® Deep Mat 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.

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

2.0 Base Metal

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

(a) ASTM A653 / ASTM A653M for Zinc coated steel (galvanized)

(b) ASTM A792 / ASTM A792M for 55% Aluminum-Zinc alloy coated steel (Galvalume®). Note: Galvalume® may not be recommended for products requiring high deformations or for products used in buildings with animal confinement.

3.0 Paint Qualification Tests

3.1 Film Thickness

The exposed surface shall have a nominal dry film thickness of 25 microns +/- 10 microns (1.0 mil +/- 0.4mil).

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 Film Hardness

The hardness of the paint film may be measured by means of Eagle/Berol turquoise T-2375 or equivalent pencils using a flat round head applied at a 45° angle to the paint film. A minimum hardness of HB shall be obtained. Pencil hardness is specified as the first pencil number that will not rupture the paint when tested as described above.

Test Method: ASTM D3363

3.3 Formability/Adhesion Test

When using a representative sample at 25°C +/-2°C (77°F) and using #610 scotch cellophane tape, the paint system will show no loss of adhesion when subjected to a 2T 180° bend test.

Test Method: ASTM D4145

This requirement does not apply to material ordered to ASTM A653M/A792M Grade 550 or ASTM A653/A792 Grade 80.

3.4 Gloss

Specular gloss shall be in the range of 1 to 5 gloss units when measured with a 60° glossmeter. Because of its matt nature, only the standard gloss can be ordered.

Test Method: ASTM D523

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 a few scattered blisters no larger than No. 8 per ASTM D714.

Test Method: ASTM D4585

4.0 Exterior exposure (weathering)

Each proven colour of Granite® Deep Mat 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 installations within 1,500ft or less from a salt water environment.

4.1 Film Integrity

During the first forty (40) years on roofs and side walls, the paint film shall have no evidence of cracking, flaking or checking to an extent that is apparent on ordinary outdoor visual observations.

4.2 Chalking

Within the first thirty (30) years after application, the degree of chalking will not exceed rating #8 for vertical application and rating #6 for non-vertical application when measured per ASTM D4214, Method A.

4.3 Colour Change

Within the first thirty (30) years after application, the change in colour will not be greater than five (5) colour units for vertical application and eight (8) colour units for non-vertical application. Colour differences are to be calculated per ASTM D2244 and only on clean surfaces after removing surface deposits and chalk per ASTM D3964

Colour is measured using any accepted 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, it is not possible for each lot of prefinished steel to be an identical texture match. Texture match problems can be minimized if the following procedures are followed:

- Ensure that each building is clad with material from the same production lot.
- Orders for large projects which could involve more than one production order should be discussed with ArcelorMittal.
- Install Granite Deep Mat panels in the same rolling direction. Any paint that is textured would be considered to have some directionality due to the continuous application process. For more certainty on the rolling direction, stencils with directional arrows can be applied if specified on the order.

When a new colour is requested, the standard sample provided for approval will be prepared in the laboratory. Due to the differences between production and laboratory paint application and the effects of texture and a low gloss specification for this product line, some variation in appearance between first time production and the standard sample is expected. Typically samples from the first production lot are used as colour match standards for future production.

6.0 Product Attributes and Colour Chart

Granite® Deep Mat textured organic coated steel comes with the backer QC60051 Grey Backer unless specify otherwise.

Available in nine standard popular colours, it can be customized in various colour options. Please inquire about additional colours.

Colour name	QC number
United White	60139
Cool Blue Gray	60133
Chocolate Brown	60034
Sepia Brown	60041
Copper Brown	60043
Graphite Grey	60035
Chrome Green	60037
Oxide Red	60042
Jet Black	60039