



1.0 Scope

This specification shall apply to hot dip metallic coated sheet steel prefinished with colours of proven durability suitable for exterior and interior exposure as delivered from the coil coater. Granite® COOL BLACK is a low gloss black colored pre-coat product designed for being used in insulated panels for steel door applications. Typical application is garage door, entry door, and foamed 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: consult with your technical service representative for suitability against amount of forming required.

3.0 Paint Qualification Tests

3.1 Film Thickness

Paint film thickness may be measured by Magnetic Induction. The exposed surface shall have a nominal dry film thickness of 25 microns (1.0 mils). Unexposed (reverse side) dry film thickness will vary in accordance with customer requirements.

Test Method: ASTM D7091

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 which is ordered as ASTM A653 or A792 Grade 80 and Grade 550.

3.4 Gloss

Specular gloss shall be in the range of 10 to 15 gloss units when measured with a 60° gloss meter. When other than the standard gloss is ordered, the gloss range shall be mutually agreed upon prior to purchase.

Test Method: ASTM D523



4.0 Product Attributes and Applications

4.1 Standard Practice For Calculating Surface Temperature

Examples of results are enclosed for dark colours compared to Granite® Cool Black. Using the Granite® Cool technology for garage door insulated panels, the surface temperature decreases by up to 15°C.

	Surface Temperature (Celsius)	
	Low wind (0 to 2 ms ⁻¹)	Medium wind (2 to 6 ms ⁻¹)
Black	128.4	71.8
Brown	124.6	68.4
Granite® Cool Black (QC60031)	113.3	64.9

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