

GENERAL INFORMATION

Substrate to be Hot Dipped Galvanized or Galvalume. Manner of application to be a two coat roll coated system including a premium MS Colorfast45 top coat over a properly cleaned and pre-treated substrate. Pre-treatment to be Zinc-Phosphate or Chromate.

SURFACE APPEARANCE

The surface to be streak free and smooth with no blistering or other imperfections.

FILM THICKNESS

Topcoat finish consists of a primer with a dry film thickness of 0.20–0.30. Primary top coat shall have a dry film thickness of 0.70–0.80 mil. The reverse side of the panel shall have a primer coat with a dry film thickness of 0.20–0.30 mil and a pigmented backer coat with a dry film thickness of 0.30–0.40 mil. Total topside dry film thickness for the system shall be 0.90–1.0 mils. All measurements per accordance with ASTM D 1005.

CHALK RESISTANCE

No chalking greater than 8 rating on vertical applications (7 rating on non-vertical applications) per ASTM D 4214-89, Method A test procedure, after 2000 hour weatherometer test.

COLOR CHANGE

Finish color coat change not to exceed 5 Hunter units on vertical applications (6 rating on non-vertical applications) per ASTM D 2244 test procedure, after 2000 hour weatherometer test.

ABRASION RESISTANCE

Per ASTM D 968, Method A, MS Colorfast45 will pass 30 liters/mil, minimum of falling sand.

TOPSIDE COLOR

MS Colorfast45 topside color is controlled by the use of an approved master standard, an approved Color Difference Meter or Spectrophotometer, and by a visual match under daylight conditions and horizontal light of a Macbeth Daylight booth per ASTM D 1729.

SPECULAR GLOSS

Specular gloss is to be determined per ASTM D 523 at a glossmeter angle of 60°. MS Colorfast45 has a standard gloss range of approximately 25% to 40% but can be manufactured at a higher or lower range upon request.

HARDNESS

Minimum pencil hardness is "F", using Eagle Turquoise pencils ASTM D 3363.

CURE TEST

MS Colorfast45 is to be oven baked to withstand 100 double rubs of an MEK soaked cloth before exposing primer coat per ASTM 5402.

CROSS-HATCH ADHESION

No paint removal with cellophane tape after cross-scoring with eleven horizontal and eleven vertical lines 1/8" apart, per ASTM 3359.

DIRECT AND REVERSE

No visible paint removal with cellophane tape after direct and reverse impact of 80-inch pounds, using 5/8" steel ball on a Gardner Impact Tester. (Not to include Zinc coating failures). Per ASTM 2794.

BEND ADHESION

Per ASTM D 4145, slight micro-cracking of finish and no loss of adhesion when taped with cellophane tape when subjected to a 2T diameter 180° bend test on 26 gauge galvanized steel or fabricator's roll forming operation. (Not to include Zinc coating failures).

HUMIDITY RESISTANCE

No blistering, cracking, peeling, loss of gloss or softening of the finish after 1200 hours of exposure to 100% humidity at 100°F ±5°F, per ASTM D 2247.

SALT SPRAY RESISTANCE

Samples diagonally scored and subjected to 5% neutral salt spray per ASTM B 117, then taped with cellophane tape: 1000-hours-no blistering, and no loss of adhesion greater than 1/8" from score line. Samples taped 1 hour after removal from test cabinet.

WEATHEROMETER TEST

No checking, blistering, or adhesion loss of coating system after 2000 hours of accelerated weathering, per ASTM D 822/G151 and G153.

FLAME SPREAD RATE

MS Colorfast45 displays a flame spread classification of A (Class 1), when tested in accordance with ASTM E 84.

CHEMICAL RESISTANCE

No significant color change after 24 hours exposure to 10% solutions of hydrochloric and sulfuric acids, per ASTM D 1308, Procedure 7.2, after 2000 hour weatherometer test.

CLEVELAND CONDENSING CABINET

No blistering or white rust after 240 hours at 140°F, with a 15 minute dry off period every 6 hours, per ASTM D 4585.

KESTERNICH TEST

No significant color change after 10 cycles in an SO₂ chamber (Kesternich Cabinet or equivalent), per ASTM G87.

EXTERIOR WEATHERING

Florida exposure (45° south) and EMMAQUA testing, per ASTM D 4141, Procedure C, both confirm superior exposure characteristics of MS Colorfast45.

CHIP RESISTANCE

Rating of at least 5B, per ASTM D 3170.

FILIFORM CORROSION RESISTANCE

MS Colorfast45 will not sustain filiform corrosion, per ASTM D 2803.

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