

GENERAL:

Commercial steel frames and doors are designed to meet the requirements of ANSI A250.8 (previously known as SDI 100), and must receive a factory applied primer. The applied primer must be tested and meet the passing criteria of ANSI A250.10-1998 *Test Procedure and Acceptance Criteria for Prime Painted Steel Doors and Frames*.

FACTORY PRE-TREATMENT (SURFACE PREPARATION) PRIOR TO PRIME PAINT:

Steel must be thoroughly cleaned and treated (phosphatized [also known as bonderize]) and a rust inhibiting primer applied. After fabrication the door panels or frame members are washed and de-greased through an automatic washing system. Phosphatizing is one of steps in this pretreatment process.

PHOSPHATIZING:

Phosphatizing makes it possible for paint to give the maximum protection to metal. There are two basic functions of phosphatizing:

1. Phosphatizing etches the metal and thereby provides an effective anchor for the paint. Bare metal surfaces allow only the minimum of paint adhesion. Phosphatized metal surface have an affinity for paint and keeps the paint from lifting off or peeling.
2. The phosphate coating is non-metallic and acts to keep out any moisture which might break the paint film and reach the base metal.

A scratch on untreated metal breaks through the paint and allows rust to work back from the scratch and lifts the paint off. Phosphatizing prevents the creep of rust and restricts the damage to the scratch itself.

When phosphatized metal is combined with Steelcraft's top quality baked-on, rust-inhibiting, prime paint, the maximum protection against rust has been achieved.

STEELCRAFT PRIMERS:

All Steelcraft Frames, Doors and Architectural Stick components shall be cleaned, phosphatized and finished standard with one coat of factory baked-on, rust-inhibited primer in accordance with ANSI A250.10-1998 *Test Procedure and Acceptance Criteria for Prime Painted Steel Doors and Frames*.

Primer Paint Testing:

The industry standard ANSI A250.10-1998 Test Procedure and Acceptance Criteria for Prime Painted Steel Doors and Frames is comprised of the following paint surface tests:

- Salt spray testing in accordance with ASTM B117-1985.
- Condensation testing (humidity) in accordance with ASTM D4585-1992.
- Impact test (no ASTM designation)
- Film adhesion test in accordance with ASTM D3359-1983.

Primer Test Results:

Steelcraft factory applied baked-on primers conform to the industry standard ANSI A250.10-1998 with the following performance:

Test	Standard	Hours	Results
Salt Spray	ASTM B117	120	Passed
Condensation	ASTM D4585-1992	240	Passed
Impact Test	Gardner Direct 20 in. lbs. with 1/2" ball	N.A.	Passed
Adhesion	ASTM D3359	N.A.	See Note 1

Notes:

1. 4B adhesion, which exceeds the test acceptance level of 3B.
2. Test procedure ANSI A250.10 is for factory primed steel doors and frames. To insure integrity of the prime painted coating, jobsite storage must be in accordance with sections 2 and 3 of this manual, ANSI/SDI A250.10 and HMMMA 840.
3. Test procedure ANSI A250.10 is a performance standard for the factory prime applied to steel doors and frames. Film thickness of the primer is not mandated by this standard.

GRAINTECH® FINISHES:

All doors and frames shall be cleaned, phosphatized and prime painted with one coat of baked-on prime paint capable of accepting an oil-based stain.

The door shall be stained to simulate a ([specify one] Ash, Birch, Mahogany, Maple, Oak or Walnut) wood door. The finished stained product shall be protected with a clear top coat incorporating UV inhibitors. After finishing, the door shall be placed in a polybag and adequately wrapped to eliminate marring the surface finish during shipment and installation.

The frame shall be field-stained to match the door after installation. The finished stained product shall be protected with a clear top coat incorporating UV inhibitors. Embossed (CE) doors shall be field stained to match the color selected. The finished product shall be protected with a clear top coat incorporating UV inhibitors.

GrainTech® Finish Paint Testing:

The industry standard ANSI A250.3 *Test Procedure and Acceptance Criteria for Factory Applied Finish Painted Steel Surfaces for Doors and Frames* is comprised of the following paint surface tests:

- Salt spray testing in accordance with ASTM B117
- Condensation testing (humidity) in accordance with ASTM D4585
- Impact test (no ASTM D2794 designation)
- Film adhesion test in accordance with ASTM D3359

GrainTech® Finish Paint Test results:

Steelcraft factory applied baked-on finishes conform to the industry standard ANSI A250.3 with the following performance:

Test	Standard	Hours	Results
Salt Spray	ASTM B117	120	Passed
Condensation	ASTM D4585	480	Passed
Impact Test	ASTM D2794	N.A.	Passed
Adhesion	ASTM D3359	N.A.	N.A.

FIELD PAINT PROCEDURES:

Steelcraft frames and doors are furnished with a high grade, low gloss, baked-on prime paint that provides the best possible protection against corrosion, abrasion and weather, and is an excellent base for finish paint.

This is a primer and requires field finishing. If the primed surface is removed or damaged, the exposed metal must be reprimed with a suitable rust inhibitive primer before top coating with a latex finish paint.

The application of the paint, using either a brush, roller or spray equipment, shall be in accordance with the paint manufacturer's recommendations. If spray equipment is used, consult with the paint supplier on recommendations for correct thinner or solvents. Do not use lacquer thinner or other solvents that may react on the primer coat.

AIR DRY APPLICATIONS:

To obtain the best results, use the following procedures:

1. Avoid painting in extremely cold or damp weather. Suggested temperature range 50°F to 90°F.
2. Sand door and frame surfaces lightly with No. 300 or 320 emery cloth or steel wool.
3. Clean door and frame surfaces using a mild solvent such as mineral spirits or a mild citrus cleaner. **Do not use strong cleaning agents, acids or lacquer thinner.**
4. Dry door and frame surfaces. **Do not use oiled or tack rags to dry door and frame surfaces.**
5. Apply finish paint following manufacturer's recommendations.

Notes:

1. Latex paints may require, depending on atmospheric conditions, up to 30 days before the paint is fully cured.
2. To avoid rusting with latex topcoat paints, it is recommended to sand and re-prime with a rust inhibitive primer any areas where the factory applied primer has been removed or scratched through.
3. **THE USE OF HIGH GLOSS PAINT IS NOT RECOMMENDED ON B-SERES.** All internal steel stiffeners are welded to both face sheets. High gloss paint accentuates the visibility of all welds.
4. Steelcraft hollow metal doors and frames are factory painted providing finish integrity in accordance with test procedures ANSI A250.10 or ANSI A250.3-1998. Jobsite storage and handling is critical. To insure integrity of the prime painted coating, jobsite storage must be in accordance with sections 2 and 3 of this manual, ANSI/SDI A250.10 and HMMA 840.

FIELD BAKED-ON FINISHES:

To obtain the best results, use the following procedures:

1. Avoid painting in extremely cold or damp weather. Suggested temperature range 50°F to 90°F.
2. Sand door surfaces lightly with No. 300 or 320 emery cloth or steel wool.
3. Clean door surfaces using a mild solvent such as mineral spirits or a mild citrus cleaner. **Do not use strong cleaning agents, acids or lacquer thinner.**
4. Dry door surfaces. **Do not use oiled or tack rags to dry door surfaces.**
5. Apply finish paint following manufacturer's recommendations.
6. Bake frames and doors as specified by paint manufacturer and outlined below:

Oven Temperatures

Frames300° F

Or as specified by paint manufacturer

Doors

L (honeycomb), T, B, A & AN-Series300°F

L (polyurethane, polystyrene)160°F

CE doors160°F

PRODUCTS:

These field painting procedures apply to ALL Steelcraft products.