

## Pre-Painted Product

### Batch to Batch Variability: “Do Not Mix” and “Directional” Paint Systems

#### 1.0 Introduction.

Due to the chemical and physical variability within certain paint systems and slight process equipment changes from one production run to another, there are some products whose appearance may not be the same from order to order. This technical bulletin describes those items Steelscape does not guarantee as reproducible and guidelines for avoiding mixed orders on jobsites.

#### 1.1 Metallic / Mica Paints.

The metallic / mica family of paints is inherently variable in appearance due to not only the physical shape of the pigment particles but also their behavior during the application process. The individual pigment particles are flat in nature allowing for light to reflect off of them at various angles. They are also typically larger in size than non-metallic pigments. The specific orientation of these pigment particles affects how the final paint system appears visually to the human eye.

The exact size and orientation of these pigment particles cannot be completely controlled during the paint manufacturing process, thus each paint batch of metallic/mica paint, even though the same color may have a slight visual difference.

When the paint is applied during the coil coating process, the final directional orientation of these pigments cannot be controlled. This results in slight visual variations from one production run to another, even if the same batch of paint is used. This phenomenon is also responsible for the slight color shift observed when viewing a metallic/mica painted panel in the coil rolling direction versus perpendicular to coil rolling direction. Steelscape does not accept responsibility for material appearance when the architectural design requires panels to be offset (i.e. perpendicular) from adjoining panels, resulting in visual differential in color and or reflectivity.

It is important that the end user does not rotate panels in the cases of symmetrical roll form patterns to avoid obvious color and light differential within the structure. The use of directional arrow branding

on the bottomside of metallic material is highly recommended.

#### 1.2 Printcoat Paint Systems (including Steelscape Prints®).

Printcoat paint systems consist of a base coat of color and then a pattern of a different color over the top, which allows two colors to be visible on the finished product. Order to order variability in this process originates from several sources.

**Print Roll Speed:** The patterned roll used to create the print effect must be moving as close to the same speed at the coil strip during production. Although every measure is taken to align these two speeds there are slight differences from one production run to another which may result in slight pattern differences.

**Paint Viscosity:** The viscosity of the paint being used for the print portion of the order will vary slightly from order to order and paint batch to paint batch. The viscosity of the paint on the print roll will affect the look of the final pattern; often resulting in a “lighter” or “heavier” pattern.

**Print Roll Pressure:** In order for the pattern to transfer from the print roll to the coil strip pressure is applied between the two. The amount of pressure controls the amount of paint film applied to the strip as well as the look of the pattern. This pressure will fluctuate slightly between production runs resulting in slightly different pattern appearances.

#### 1.3 ReziBond®, Vintage® and TruzGuard™ Coatings.

The ReziBond, Vintage and TruzGuard coatings are inherently variable in appearance due to the coatings’ composition and application process. The make-up of these specialized coatings, while guaranteed within an approved color range, cannot be completely controlled during the paint manufacturing process. As such, each coating batch may have a slight visual difference.

These slight visual variations from one production run

to another can occur even if the same batch of the coating is used. This phenomenon is also responsible for the slight color shift observed when viewing a coated panel in the coil rolling direction versus perpendicular to coil rolling direction. Steelscape does not accept responsibility for material appearance when the architectural design requires panels to be offset (i.e. perpendicular) from adjoining panels, resulting in visual differential in color and or reflectivity.

It is important that the end user does not rotate panels in the cases of symmetrical roll form patterns to avoid obvious color and light differential within the structure.

### 1.4 ZINCALUME or TruZinc Plus

The color of both the metallic coated substrate and acrylic resin can vary slightly between production runs. In addition, the spangle size on ZINCALUME varies slightly between orders. These visual differences can be even more apparent between suppliers.

## 2.0 Guidelines for Avoiding Mixed Orders on Jobs.

Inventory and order size are critical for ensuring that mixed batches of variable painted and/or coated product do not get used at a jobsite. If the paint system or specialized coating is a standard or stock item, order large quantities at a time; this will allow for fewer batches in inventory and reduce the risk of mixed orders on a job.

If the item is a custom color or print requiring established minimum linear feet, order slightly more linear feet than the job requires. This will allow any damaged or defective material to be replaced from the same production run.

If it is absolutely necessary to use more than one order of a metallic/mica, printcoat or specialized coating on a job compare the different available batches carefully; some batches may be a better match than others. Also, using different batches on trim, accessories or on separated portions of a building may not be visually objectionable.

If a project cannot be completed without ordering additional material, it is imperative that Steelscape be notified of the situation and told which previous order needs to be matched. Although Steelscape will not guarantee a match on metallic's/micas, print-coats or specialized coatings, every effort will be made to duplicate the desired color as closely as possible.

Steelscape strongly recommends the use of branded, directional arrows on metallic, micas, Vintage and TruzGuard coated coils.

222 West Kalama River Road, Kalama, WA 98625-9420 USA | Phone 360-673-8200 | Fax 360-673-8250

The information and advice contained in this Technical Bulletin ("Bulletin") is of a general nature only and has not been prepared with your specific needs in mind. You should always obtain specialist advice to ensure that the materials, approach and techniques referred to in this Bulletin met your specific requirements.

Steelscape, LLC makes no warranty as to the accuracy, completeness or reliability of any estimates, opinions or other information contained in this Bulletin and to the maximum extent permitted by law, Steelscape, LLC disclaims all liability and responsibility for any loss or damage, direct or indirect, which may be suffered by any person acting in reliance on anything contained in or omitted from this Bulletin.

ZINCALUME® is a registered trademark of BlueScope Steel Limited.

©2015 Steelscape, LLC