

### Introduction

COLORBOND® steel in a Classic finish, Matt finish and Metallic finish each offer a distinct finish. For builds with roof or wall cladding in large single planes, the following best practices are advised when ordering and installing these products to optimise visual consistency.

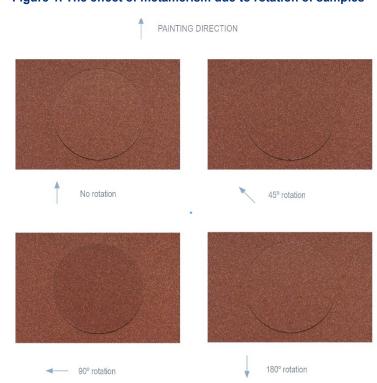
#### Attributes of each finish

## **COLORBOND®** steel in a Metallic finish

Metallic paint systems obtain their lustre from the addition of mica particles. These particles create a visual effect known as geometric metamerism, where the colour of the painted surface appears to be different dependent upon viewing angles and lighting conditions.

Figure 1 shows a disc punched from a sample of COLORBOND® steel Metallic in the colour Aries® which has been rotated through 45°, 90° and 180°. As the figure illustrates, when the same material is rotated relative to its original orientation, a significant inherent difference in colour and appearance can be observed.

Figure 1. The effect of metamerism due to rotation of samples



# **COLORBOND®** steel in a Matt finish

COLORBOND® steel Matt has a microtextured paint finish made possible by microwrinkle paint technology. These microwrinkles scatter the reflected light in different directions providing a much lower specular reflectance which means that COLORBOND® steel Matt has a matt appearance, even in full sun.

Whilst COLORBOND® steel Matt does not display directionality like COLORBOND® steel Metallic, changes in profile and viewing angle may give variations in appearance.

### **COLORBOND®** steel in a Classic finish

COLORBOND® steel in a Classic finish (COLORBOND® steel) has a low sheen finish which is consistent in all directions as flat sheet, though changes in profile and viewing angle may give variations in appearance.

### **Ordering**

Stringent appearance specifications are used in the manufacturing of these products, however, for broadsheet supplied to large projects, or for building products for a single project that will be installed in the same visual plane, the best practice is to source coils from a single coil or a consecutive coil series in a single BlueScope production run to ensure a consistent aesthetic is maintained.

Customers should inform the BlueScope Sales Office of all requirements for a given project so the orders can be batched.

Notifying the BlueScope Sales Office is particularly important when a project calls for various sizes to avoid material being supplied from different batches.

### Viewing angles

Rollformed sections of COLORBOND® steel, COLORBOND® steel Metallic and COLORBOND® steel Matt will display visual variation due to the varying angles of incident light.

The customer should be aware of this visual effect as well as the potential for variation between vertical and horizontal exposure. Accessories will be subject to different conditions of incident lighting compared to flat roof or wall panels.

#### Installation

### **COLORBOND®** steel Metallic

In order to prevent mismatching, all panels on a project should be aligned in the same direction. To assist in this regard, BlueScope brands the reverse surface of all COLORBOND® steel Metallic in the same printing direction which can be used to indicate the direction of painting. However, when fabricating architectural panels, the brand indicating direction of painting is no longer visible. Care should be taken to ensure that a suitable system exists to convey this information to the installer. Caution must also be taken during installation to ensure that adjacent panels fit flush and flat relative to one another. Failure to do so may result in appearance variations.

### COLORBOND® steel Matt and COLORBOND® steel Classic

COLORBOND® steel Matt and COLORBOND® steel Classic in a flat sheet have no directionality. In a rollformed profile, any variation in installed profile angle or changes in viewing angle may give variations in appearance.

When installing asymmetric profiles in a single plane, best practice is to install profiled sheets in the same orientation.

#### **Accessories and Fasteners**

Colour matching for accessories products made from COLORBOND® steel Metallic or COLORBOND® steel Matt should be done using a steel swatch sample (requested via Steel Direct 1800 800 789).

For accessories products which have instead been powdercoated, e.g. gutter clips, information related to visual matching is as follows:

### **COLORBOND®** steel Metallic

Accessories which are not made from COLORBOND® steel Metallic, e.g. gutter clips, which are instead powder coated in a
metallic finish, will be subject to a metameric effect and as a result are likely to be different in appearance. This is due to the
differences in paint chemistry and method of paint application between COLORBOND® steel Metallic and powder coated
accessory items.

#### **COLORBOND®** steel Matt

- Accessories which are not made from COLORBOND® steel Matt, e.g. gutter clips - powdercoat suppliers provide the nearest visual match by providing a low gloss finish.

### **COLORBOND®** steel Classic

Accessories are supplied in COLORBOND® steel Classic.

Fasteners in COLORBOND® steel Classic colours are used with COLORBOND® steel Classic, COLORBOND® steel Matt and COLORBOND® steel Metallic.



For COLORBOND® steel Metallic used in profiles with concealed fasteners, colour matched fasteners are not required.

For COLORBOND® steel Metallic used in profiles where fasteners are visible, colour matching should be done using a steel swatch sample.

# **Summary of Best Practice**

- 1. Order all material for one project at the same time (especially important for COLORBOND® steel Metallic).
- 2. For COLORBOND® steel Metallic, install panels according to painting direction, and ensure they fit flush and flat relative to one another.
- 3. Do not mix material produced from different paintline runs (look for same date of manufacture on inkjet brand on reverse)
- 4. Be aware of variation in appearance on rollformed sections and horizontal versus vertical exposure.
- For accessory and fastener colour matching, check with your supplier for further details. Colour matching for accessories that are
  made from COLORBOND® steel Metallic or COLORBOND® steel Matt should be undertaken using a steel swatch sample
  (requested via Steel Direct 1800 800 789).

# **Related BlueScope Technical Bulletins**

<u>Technical Bulletin TB-18 Guide to good practice – Processing and application of BlueScope coated steel products</u>
<u>Technical Bulletin TB-38</u> Effect of touch-up paint

<u>steel.com.au</u>

To ensure you have the most current information

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