

# TECHNICAL BULLETIN

## Color Rub-off

### What is Color Rub-off?

Rich, “saturated” colors in darker shades have become a growing trend in interior home painting. While dark colors can provide a pleasant contrast and draw attention to architectural detail, they present certain challenges to painting contractors, as well as homeowners. One of them is a phenomenon called “color rub-off.”

Color rub-off is also referred to as “crocking” in technical terms. Crocking is defined in the Paints/Coatings dictionary as: (1) removal of color on abrasion or rubbing; (2) staining of a white cloth by rubbing lightly over a colored surface. Although color rub-off can be observed when rubbing the painted surface with a dry cloth, most incidents reported by consumers almost always occur under surface-dampened conditions.

### What causes or contributes to Color Rub-off?

1. Not enough time allowed for paint to dry before cleaning. Also, too short of a dry time between coats will result in longer “cure” time.
2. Darker colors are more prone to color rub-off because they are tinted with more colorants. This is because more colorants mean higher level of surfactants which makes the paint film more water-sensitive.
3. Flat or lower sheen paints are more prone to color rub-off.
4. Painting in very cold weather detracts from proper film formation. When applied at low temperatures, the binder particles in the paint become too hard to form a continuous, protective film.
5. Use of aggressive cleaning solutions (e.g., 409 and Fantastik) and improper cleaning technique.

### How do I avoid or minimize Color Rub-off?

1. When applying multiple coats, the next coat of paint should be applied a minimum of two hours following application of the previous coat.
2. Avoid applying the paint in a very heavy coat. Applying two thin coats with proper re-coat time is better than applying one heavy coat.
3. Allow at least 2 weeks for paint, following application, before attempting to clean the surface.
4. Use higher sheen paints for areas subject to more abuse, such as hallways, children’s bedrooms and family rooms. Paints with higher sheen levels contain more resins and less pigments, making them more resistant to color rub-off.
5. When cleaning the painted surface, use the following technique:
  - Always use a soft, cellulose sponge for cleaning.
  - Always wet the sponge before use to prevent excessive surface abrasion.
  - Always use the least aggressive cleaner, such as dishwashing liquid solution, that will remove the dirt or stain.
  - Always rub the surface gently in a circular motion.

Most commercial tinted latex (water-based) paints that we have tested exhibit some degree of rub-off. Some have very slight rub-off and some are much more severe. Our R&D Laboratory constantly looks for ways to formulate paints that exhibit superior color rub-off resistance. Contact your local Dunn-Edwards sales representative for further assistance.

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