

PERIDIUM POWDER COATINGS

Chemical and abrasion resistance of metallic or effect Coatings

Problem. Metal flakes can react with chemicals such as water or cleaning agents (alkaline or acidic) that darken the appearance of the coating. Sparkle finishes with the metal more “hidden” in the coating are better for chemical resistance than the chrome appearances where the metallic pigment is highly concentrated on the surface. A clear coat over a metallic finish can be used to protect metallic pigments from moisture and cleaning agents.

Non-metallic effect pigments have dramatically better chemical resistance. However, there are limitations on the appearances that can be achieved with effect pigments. All effect coatings will be affected by abrasion. Coatings with aluminum flakes will darken. Effect pigments close to the surface will be removed allowing more base color to show through, which changes the appearance. The abrasion can occur in the shipping process or in normal use of a painted surface. All effect coatings that will be used in areas where abrasion will occur, **MUST** have a clear coat applied over the base coat to prevent changes. This includes but is not limited to hand rails, office furniture, handheld devices, tools, or cabinets.

Solution. Coatings with metallic pigments are susceptible to visual degradation due to the environment they are used in. There are some applications suitable for metallic coatings without a clear coat, for example, interiors. However testing should be conducted that validates the performance expected from the coating before use. A clear coat is recommended over all effect coatings for the best protection against chemicals and abrasion.

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